Defense Integrated Military Human Resources System (DIMHRS)
Requirements Development Plan

FINAL DRAFT

12 Aug 2002

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1 INTRODUCTION

1.1 BACKGROUND

On March 20, 2001, the Department of Defense (DoD) selected the PeopleSoft (PS) Human Resource Management System (HRMS) as the commercial-off-the shelf (COTS) software product on which to base the Defense Integrated Military Human Resources System for Personnel and Pay (DIMHRS [Pers/Pay]). Subsequent to the selection, the COTS Initial Analysis Team, comprising functional, technical, and data representatives from the Joint Requirements and Integration Office (JR&IO), the Joint Program Management Office (JPMO), the Defense Finance and Accounting Service (DFAS) and the military Services, was formed to conduct a high-level analysis of PeopleSoft HRMS to determine its suitability to support the Defense Integrated Military Human Resources System for Personnel and Pay (DIMHRS [Pers/Pay]).

Subsequent to the COTS Initial Analysis Team's efforts, five integrated analysis teams were established to conduct comprehensive Business Area (BA) analysis of the military personnel and pay enterprise, using PeopleSoft HRMS as a foundation. These integrated teams, referred to as Comprehensive Analysis Teams (CATs), are composed of DoD, DFAS, and Service functional subject matter experts (SMEs), and PeopleSoft and Booz Allen Hamilton contractor support personnel.

1.2 SCOPE

The Requirements Development Plan (RDP) describes how the CATs will conduct BA analysis to identify, define and document, the functional requirements to be supported by DIMHRS (Pers/Pay).

The BA analysis methodology presented in this RDP describes how each CAT will conduct comprehensive analysis for a single BA (e.g., Hire Enlisted Personnel) within the military personnel and pay enterprise to produce an integrated (Pers/Pay) set of business requirements based on the DoD and Service business rules, and PeopleSoft HRMS industry best practices.

Each CAT will focus on the policies that drive the actions performed, the data and business rules that are used in the actions or as a result of the actions, and the outcome goals of the actions themselves. To accomplish this, the project team will use an analysis methodology that emphasizes product-enabled business process reengineering and focuses on discrete BAs within PeopleSoft HRMS and the related functional requirements presented in the Function, Process, & Activity Report (FP&A), dated 7 October 1999, and the DIMHRS (Pers/Pay) Operational Requirements Document (ORD), dated 2 July 2001. Section 3 presents an overview of the BA analysis methodology and the specific activities required to complete and document the analysis. In addition to defining the BA analysis activities, the RDP defines the composition of the teams and the artifacts developed during the analysis.

2 PROJECT TEAM COMPOSITION AND ROLES

This section of the RDP describes the overall project team organization and details the positions employed to accomplish comprehensive analysis.

2.1 COMPREHENSIVE ANALYSIS TEAM (CAT)

Each CAT will consist of a Lead and Functional Experts from JR&IO, representation from DFAS, and contractor support personnel from Booz Allen Hamilton and PeopleSoft.

2.1.1 CAT Lead (JR&IO)

The CAT Lead has the following responsibilities:

- Provides overall direction for the CAT to achieve mission objectives and to ensure the quality of the CAT work products.
- Supervises the overall activities of the CAT against the project schedule to ensure timely completion of all requirements.
- Ensures that functional issues are raised to the appropriate level for resolution and appropriate actions are taken to incorporate the resolution into the BA analysis and CAT work products.
- Performs as the primary point of contact for issues and coordination through JR&IO.

2.1.2 Functional Experts (JR&IO)

- Represent their respective Service, component, and/or DFAS as a member of a CAT and may be appointed as a CAT Lead.
- Functional Experts must have extensive knowledge and/or functional experience with the personnel and/or pay business as applicable to their organization and commensurate with their grade and years of experience.
- Senior Functional Experts are the primary points of contact for issues and coordination within and through JR&IO. They should have extensive experience with Service policies/directives, DoD guidance, and associated laws, as well as the organization structure, process flow, and business activities for a wide range of personnel and/or pay functions to effectively represent their Service/component in the DIMHRS (Pers/Pay) requirements definition process.
- Functional Experts should know specific DoD and Service points of contact to obtain Service/component specific information pertaining to DIMHRS (Per/Pay) business functions associated with all comprehensive analysis business areas.

2.1.3 CAT Facilitator (Contract JR&IO Support)

- Responsible for planning, organizing, directing, and coordinating the JR&IO support team effort.
- Advises the JR&IO CAT Lead regarding task schedule development and execution, including schedule revision(s) and development of Plan(s) of Action and Milestones (POAM).
- Responsible for facilitation, development, and validation of Use Case models, BA activity models, associated reference lists, information requirements, and business rules.
- Facilitates development of "Question/Issue" documentation in accordance with JR&IO Section 3.6.6 of this plan. The CAT Facilitator will also track status of resolution effort.
- Coordinates CATs to ensure that cross-team issues, requirements, and process information are shared; all task areas are being adequately addressed; and duplicative efforts are minimized.
- Coordinates development of additional CAT products and briefings as required.
- Facilitates task product reviews when required.
- Provides status reports on schedule, personnel, and logistics issues.
- Develops the BA schedule in conjunction with the CAT Lead and ensures all milestones are accomplished on schedule.
- Identifies and tracks the "Issues Resolution" process for the CAT analysis effort.
- Ensures the continual quality of the CAT analysis effort and work products.
- Facilitates collaboration and coordination across the DIMHRS project.
- Coordinates the CAT training and resource requirements.
- Coordinates the workshop planning, resources, facilitation process, and the accomplishment of workshop objectives.

2.1.4 CAT Technical Lead (Contract JR&IO Support)

- Responsible for the technical integration of the CAT analysis effort and development of task products.
- Provides a direct avenue for technical collaboration efforts with other CAT Technical Leads and supports standardization and completion of task products.

- Manages and monitors development of CAT products (including appropriate artifacts) and ensures product compliance with the Requirements Development Plan (RDP), the DIMHRS ORD, and the DIMHRS data management plan.
- Supports CAT efforts with technical guidance and supports individual CAT member project tool(s) technical knowledge development.
- Apprises CAT Lead and appropriate CAT Technical Leads of identified process improvements and suggestions.

2.1.5 CAT PeopleSoft Consultant (PeopleSoft)

- Provides a combination of PeopleSoft application and industry best practice expertise to determine the most effective use of delivered PeopleSoft capabilities to achieve DIMHRS functional requirements.
- Promotes knowledge transfer of PeopleSoft application usage and functionality, as well as industry best practices to the DIMHRS project team.
- Develops and executes targeted PeopleSoft training and demonstrations to support the CATs in business area analysis. This includes startup training for all CATs and just in time and follow-up PeopleSoft training and demonstrations as required for each business area and as requested by the CATs.
- Participates in CAT business area kick-off meetings, working sessions, and reviews.
- Assists the CAT in developing activity models to fulfill the functional requirements of the business area.
- Assists the CAT in identifying acceptable alternatives to meet functional and data gaps, including business process reengineering recommendations, policy, and guidance changes, and alternative PeopleSoft functionality, workarounds, or enhancements.
- Responsible for communicating and demonstrating product functionality, capabilities, and potential solutions to functional requirements as specified by the CATs. Acts as resident expert on the PeopleSoft HRMS product, functionality, setup requirements, and integration of personnel and pay.
- Responsible for identifying and communicating PeopleSoft Table Interdependencies as necessary during CAT of each BA. Identifies potential impact of changing/modifying existing table setup as necessary.
- Participates in review of various products produced by the CATs during analysis and for reviewing final products from each BA. These products include Activity Models, Use Case Diagrams, Use Case Specifications, Form Specifications, and Question/Issue documentation.

2.1.6 Requirements Analyst (Contract JR&IO Support)

- Participates in developing and analyzing task area processes, business rule requirements, and information requirements.
- Ensures identified and developed requirements comply with JR&IO guidelines.
- Develops new information requirements identified by the CAT and ensures that they do not duplicate other efforts or approved requirements, and that they are properly formatted, documented, and validated.
- Develops new business rule requirements identified by the CAT and ensures that they do not duplicate other efforts or approved requirements, and that they are properly formatted, documented, and validated.
- Identifies possible requirements gap(s) and proposes solution(s).
- Develops preliminary "Question/Issue" documentation for CAT analysis and submission.
- Assists in developing CAT products and briefings as required.
- Supports cross-CAT integration, process development, issue resolution, and requirements validation in conjunction with Lead Facilitator and Technical Lead efforts.
- Identifies and provides process improvement ideas to CAT Lead and Technical Lead.

2.1.7 Data Analyst (Contract JR&IO Support)

- Assists in developing new information requirements identified by the CAT and ensure that they do not duplicate other efforts or approved requirements.
- Supports definition of information requirements in clear English, detailed to a level sufficient to support legacy mapping efforts.
- Assists in developing new Business Rule Requirements identified by the CAT ensure that they do not duplicate other efforts or approved requirements, and that they are properly formatted, documented, and validated.
- Identifies possible requirement gaps and proposed solution(s).
- Develops preliminary "Question/Issue" documentation for CAT analysis and submission.
- Assists in mapping requirements to appropriate artifacts as required.
- Assists in developing CAT products and briefings as required.
- Supports cross-CAT integration, process development, and issue resolution and requirements validation in conjunction with Lead Facilitator and Technical Lead efforts.

2.2 CAT OPERATIONS

2.2.1 CAT Functional Coordinator (JR&IO)

- Responsible for managing the overall DIMHRS functional requirements and related artifacts and issues.
- Coordinates continual process improvement of the business area and product-enabled business process reengineering methodology, processes, and deliverables. Identifies, resolves, and records internal operational issues and business process improvement ideas.
- Works closely with entire DIMHRS team to address and resolve CAT issues.
- Manages comprehensive analysis issues. Receives issues from CATs and other DIMHRS organizations, and reviews issues for validity and completeness (see Appendix A, DIMHRS Issue Resolution Process, and Appendix B, Issue Resolution Form Template).
- Maintains the issue summary and status log.
- Coordinates issue staffing and referrals to the CATs.
- Submits issues to the Director, JR&IO, for consideration and entry into the Issue Resolution Process.
- Manages DIMHRS functional requirement references, including U.S. law, DoD and Service policies, guidance, and regulations.
- Coordinates and schedules CAT/business area peer reviews.
- Conducts team quality reviews of CAT functional and data requirement artifacts and the business area analysis deliverables during scheduled reviews and as requested by the CATs.
- Provides direction and guidance to the CATs on the methodology/requirements development plan processes and procedures.
- Provides support and guidance to the CATs in analysis of DoD requirements, interpretation of FP&A processes and references, and development of DIMHRS functional requirement artifacts and gap issues.
- Identifies CAT issues (functional, technical, data, PeopleSoft) when additional resources are required or significant decisions are needed to further the work. Coordinates strategic work sessions to leverage input.
- Works closely with the CAT leadership in monitoring progress of the business area analysis and status of functional requirement development.

- Assists the CATs in scoping business areas for analysis with respect to the FP&A processes, references, IRs, and issues. Assists the CATs in identifying previous work relevant to the business area.
- Participates in CAT business area kick-off meetings and reviews.
- Assists in performing dependency analysis and identifying shared functionality (FP&A processes, IRs, and PeopleSoft components) across CATs. Facilitates cross-CAT coordination and collaboration sessions to address shared functionality.

2.3 CAT INTEGRATION

2.3.1 CAT Integration Team (JR&IO Staff and Contract JR&IO Support)

- Maintains an enterprise outcome viewpoint across all teams and Business Areas as methods, techniques, and artifacts evolve.
- Leads the definition of methods and techniques used to evaluate the business, improve processes, influence guidance, and define data.
- Guides and contributes to process improvement of enterprise communications, methods, techniques, operations, quality, and products.
- Incorporates standard practices that contribute to the satisfaction of customer requirements.
- Induces interaction among CAT Leads and analysis team operations.
- Provides assistance to CATs regarding the consistent execution of project methodologies and analysis techniques.
- Tracks and maintains the visibility of business processes that have been deemed out of scope by CATs during their scoping activities.
- Ensures quality and improvement of the processes, techniques, methods, and tools for identifying and defining functional requirements across the enterprise.
- Collaborates in the maintaining the enterprise information architecture (BAs) and their phased order planning and analysis priority.
- Ensures quality of the functional requirement artifacts and BA analysis deliverables.
- Participates in overall project coordination via Comprehensive Analysis video-teleconferences (VTC) and Integrated Prototype VTCs with JR&IO, JPMO, and DFAS.
- Oversees and manages CAT Workshop activities.
- Oversees and manages Functional User Workshop activities.

- Manages PeopleSoft test and data modeling activities.
- Develops the DIMHRS Peer Review Plan (see Appendix C, DIMHRS Peer Review Plan).
- Oversees and manages Peer Reviews for completed BA products.
- Coordinates deliverable and report preparation.
- Provides operational oversight of daily activity and scheduling for the program, including client communication to explain schedule adjustments, scope adjustments, artifact content, deliverable description, and reviews.
- Maintains an enterprise outcome viewpoint across the team as methods, techniques, and artifacts evolve.
- Contributes to process improvement of the enterprise methods, techniques, operations, products, quality, controls and communications.
- Responsible for establishing, operating, and maintaining the network environment.
- Oversees and manages cross-CAT/BA issue resolution to ensure work product consistency is maintained across the enterprise.

2.3.1.1 Data Analyst Lead (Contract JR&IO Support)

- Responsible for the managing data quality, integrity, internal and external compatibility and standardization through process improvement, training, and mentoring at all levels of the enterprise.
- Supports the development of a standard methodology and related processes to ensure consistent development of high-quality data products developed across multiple DIMHRS teams.
- Oversees the integration of data artifacts with other Comprehensive analysis artifacts and data standardization artifacts.
- Defines project processes, methods, techniques, and tools to analyze and document information requirements, data models, and supporting artifact links within the DIMHRS enterprise data architecture.
- Assists JR&IO in providing oversight and guidance to the various DIMHRS Data Teams (i.e., the Requirements Mapping, Legacy Data Mapping, Conversion, Data Interface, Build, Archive, and Reports teams) to ensure consistency of artifact development across multiple teams.

2.3.1.2 Project Configuration Management Official (Contract JR&IO Support)

Develops the CM plan and associated procedures (see Appendix D, DIMHRS (Pers/Pay)

Functional Requirements Configuration Management Plan).

Develops, coordinates, and enforces the methodology and standard procedures for identifying and documenting project artifacts.

Directs the implementation of CM actions based on the CM Plan.

Maintains records of and conduct periodic audits and inventories of all project artifacts under CM control.

Trains project members on their CM duties and responsibilities.

Establishes and controls product baseline definitions.

Assists project leaders in defining and determining product baselines.

Implements appropriate change control procedures.

Facilitates the Quality Assurance audits of compliance with CM standards and procedures.

Maintains the CM Library, which includes specifications, developed artifacts, configuration records, releases, and documentation.

Controls all changes to project baseline configurations through formal change processing and procedures.

Reviews CM activities monthly.

Develops and generates periodic management reports.

3 BUSINESS AREA ANALYSIS METHODOLOGY

This primary purpose of this section of the RDP is to provide guidance to the CATs for execution of the requirements analysis and identification of business process reengineering/business process improvement (BPR/BPI) opportunities for a specific Business Area. The model in Figure 3-1 shows the process by which each CAT will prepare for, conduct, and document the results of the team's BA analysis efforts. It also illustrates the related processes whereby the JR&IO will lead the effort to gain resolution to issues raised during BA analysis. As shown in the figure, the resolution of issues can be expected to feed back into the BA analysis process, requiring additional iterations of analysis to address any new requirements embodied in the issue resolution.

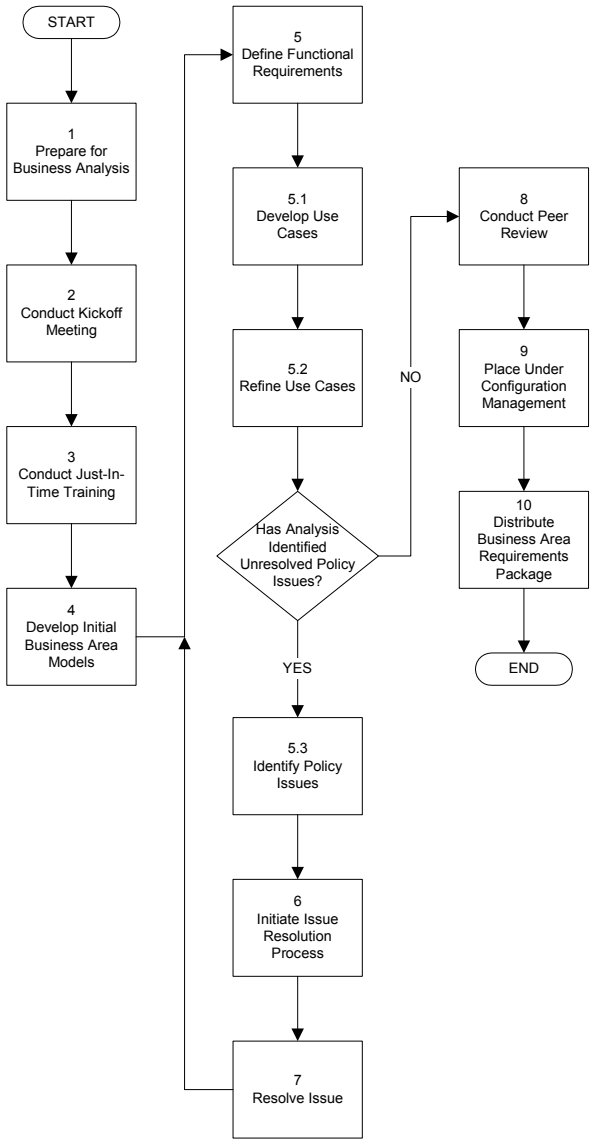

Figure 3-1. Business Area Analysis Process Model

3.1 METHODOLOGY OVERVIEW

Each CAT will focus on one business area at a time, with the mission of documenting required DoD functionality. In addition, BA analysis will involve identifying any opportunities to improve DoD or Service business practices through reengineering, standardizing, or consolidating processes. The first CAT, CAT Beta, had the added responsibility of reviewing and setting up foundation tables within the application. As required, other CATs may share the responsibility for setting up foundation tables to support the execution of scenarios to demonstrate functionality for their assigned BAs.

Each CAT will prepare for BA analysis by conducting a review of references and existing artifacts. From this review, the team will develop a BA Kickoff Package for presentation to the CAT Functional Coordinator.

At the kickoff meeting, the CATs will present the BA Kickoff Package to the CAT Functional Coordinator. Together, the CATs and CAT Functional Coordinator will review the kickoff package to ensure that the CATs have correctly scoped the BA, gathered the requisite information to proceed with their analysis, and identified any training or resource issues for resolution by the CAT Functional Coordinator or project leadership. The CAT Functional Coordinator will approve the kickoff package, determine the appropriate training to be provided to the CATs, and assist in identifying issues for resolution, as required.

The CATs will then analyze and document requirements for the BA in Use Case diagrams and specifications (see Appendix E, DIMHRS Use Case Template). The output of the analysis will be a BA Requirements Package. The CATs will document the requirements in the appropriate Rational Enterprise Suite tools, ensuring that all appropriate links are established among references, FP&A processes, business rules, and information requirements (see Appendix F, Reference Procedures Guide, Appendix G, Business Rules Procedures Guide, and Appendix H, Information Requirements Procedures Guide).

In addition to documenting DIMHRS functional requirements, the CATs may generate issues, identifying recommended changes to DoD or Service policy for streamlining or standardizing processes related to the BA. The CATs will document these issues using the Issue Resolution Form Template in Appendix B of this document. The CAT Functional Coordinator will then track the issue in a summary log and coordinate the issue resolution process through JR&IO. In cases where the functional community (JR&IO/JIG/ESC) determines that a redesigned process is the preferred alternative, JR&IO will take action to initiate the process change, either by drafting legislation or by coordinating Service policy changes.

In the next phase, the JPMO will develop and cost out alternatives to address the gap identified on the issue template. JPMO will provide a description and rationale supporting a recommended approach to the functional community for review and approval.

Once the CATs have documented the functional requirements for a BA, the Peer Review Panel will conduct a formal inspection of all the BA artifacts. The CATs may not change the artifacts after they have corrected any defects or issues identified during the peer review. Once JR&IO has approved the artifacts, the PCMO will place the artifacts under CM. JR&IO will then

distribute the BA Requirements Package to the JPMO and the Joint Integration Group (JIG) for review and comment.

The major BA analysis activities follow:

1. Prepare for Business Area Analysis
2. Conduct Kickoff Meeting
3. Conduct Just-in-Time Training
4. Develop BA Activity Model
5. Define Functional Requirements
6. Conduct Peer Review
7. Place Under Configuration Management
8. Distribute Business Area Package.

The remainder of Section 3 describes the analysis activities and deliverable artifacts produced during BA analysis. It describes the steps within the methodology and identifies responsibilities for activities within the project team.

3.2 PREPARE FOR BUSINESS AREA ANALYSIS

Each CAT will prepare for BA analysis by conducting a review of references, initial analysis results and existing artifacts applicable to their BA. From this review, the team will develop a BA Kickoff Package for presentation to the CAT Functional Coordinator. The goal of this activity is to define the scope of the BA, align all relevant existing artifacts to the BA, identify additional training requirements, and ensure that each CAT member is familiar with and understands the existing resources available to support the analysis effort. This effort will be a combined activity involving the CAT Functional Coordinator and CATs.

The primary focus of the CAT will be to—

- Identify relevant DoD and Service-level references
- Review and study existing artifacts relevant to a BA
- Construct and create a BA Kickoff Package.

The primary role of the CAT Functional Coordinator will be to—

- Review and comment on the BA Kickoff Package
- Provide enterprise focus and scoping support

The details for preparing for BA analysis and creating a BA Kickoff Package are described below.

The initial support for this activity will be via the use of RequisitePro as a “portal” to the BA artifacts to allow the CAT members to have easy access to the library of references and other

existing artifacts that are in the scope of their Business Area. Additionally, RequisitePro is to be used to map ("flag") the references and other artifacts to the BA. A set of predefined attribute and traceability views will support the activity in various ways, including the preparation of the BA Kickoff Package.

3.2.1 Review Initial Analysis Results for the Business Area

In preparing for BA analysis, each CAT will review the COTS Initial Analysis Final Report. The goal of this activity is to understand the initial analysis methodology and results of the initial analysis conducted from May–August 2001. The main body of the report, which is on file with JR&IO, provides detailed information regarding the methodology used by the Initial Analysis Team (IAT), a description of the PS setup, and the outcome of their analysis.

Each CAT will focus particular attention on the following appendices of the report.

3.2.1.1 Initial Analysis Process Models

As part of the Initial Analysis effort, the IAT developed process models that depict the PS and recommended DIMHRS Gap Components used when executing their scenarios. These models, along with complete scenario documentation, are located in Appendix O of the Initial Analysis Final Report. The process models are also stored in separate PowerPoint files available through JR&IO. The Initial Analysis Process Models are PeopleSoft-based models created to fit the Initial Analysis scenarios. They do not cover the entire scope of a BA. Consequently, not every BA will have a corresponding component flow model from the Initial Analysis effort. The CAT should review these models and include applicable portions when constructing their BA activity model.

3.2.1.2 Initial Analysis Comments/Issues

The CATs should pay close attention to the comments documented throughout the Initial Analysis Final Report. Many of these comments are linked to FP&A Processes and can be found in the COTS Analysis available through JR&IO.

3.2.2 Review Existing Artifacts

The CATs will identify and review the previously delivered DIMHRS work products (e.g., existing best practice Business Function Process Models, IRs, References, BRs, and Unified Modeling Language [UML] diagrams) and DFAS-provided Pay Calculation and Pay Eligibility rules for those portions of the FP&A Report identified as being within the scope of the BA. The CATs will include all existing artifacts that are germane to a BA in their BA Kickoff Package.

The CATs should review the following artifacts:

- ***Existing Business Function Process Models***

The CATs should review existing best practice Business Function Process Models (e.g., Enlisted Accessions Process Model, Transition Process Model) available through JR&IO that are relevant to their BA to gain a better understanding of the functional requirements.

- ***Existing Information Requirements***

The CATs should review the approved information requirements (IR) list in RequisitePro to identify IRs that are relevant to the BA. An IR represents a DoD requirement for data. During this analysis phase, the teams should simply determine whether they believe an IR is relevant and pull the IR into their BA Kickoff Package for future analysis. At this phase, it is better for the CATs to err on identifying too many IRs than too few. The CATs should identify the IR to their Business Area. The CATs should print an IR Report and include it in their BA Kickoff package.

- ***References Within Scope of the BA***

The CATs will identify the DoD parent references (i.e., DoDI or DoDD) applicable to their BA. The CATs should review references, including materials available in the DIMHRS Main Project and DIMHRS Historical Model and Project.

If a reference is applicable to their BA, the CATs should verify the currency of the reference, identify recent changes or reissuance's identify and register any additional references required, and obtain and register an online link to the references if at all possible. Additional details regarding the maintenance and linking of DoD references can be found in Appendix F. The CATs should access the electronic version of the reference that is accessible from the reference package within the Rational Tool maintained by the CAT Functional Coordinator. If the CATs identify additional references relevant to their BA, the CATs should generate a Reference Report from the Rational Enterprise Suite Tools and include it in their BA Kickoff Package.

- ***FP&A Process to DoD Reference Mappings***

Mappings from DoD references to FP&A processes are maintained in the Rational Enterprise Suite Tools. Each CAT should generate the FP&A to Reference Report for their BA Kickoff Package. The CATs should verify the report's contents and include the report in their BA Kickoff Package. The teams should not modify the specific FP&A views until after the CAT Functional Coordinator has reviewed the BA Kickoff Package.

3.2.3 Review Assigned Pay Types

The CATs will review the list of pay types assigned to the BA to be analyzed, the number of pay types assigned, and the level of effort estimated to be required for completion of the BA analysis.

3.2.4 Assemble BA Kickoff Package

The CATs will assemble the BA Kickoff Package for presentation to the CAT Functional Coordinator. The package will include the following:

IR Overview

FP&A to Reference Overview

Reference Overview

3.2.5 Develop Business Area Schedule

The CATs will review the initial project schedule developed for their BA. Based on the amount of information available (e.g., BA scope, existing artifacts, team expertise, resources, and time), the team may recommend expanding or contracting activities within the project schedule to better allocate the time available for analysis. The CATs should copy their BA tasks out of the Project Schedule and save them to a separate file in their CATs folder.

3.2.6 Identify Just-in-Time Training Requirements

The CATs will prepare a listing for which the CATs require training, and recommended training dates. Just-in-Time (JIT) training requirements should be stored in the appropriate BA folder.

3.2.7 Prepare JIT Training

CAT Leads are to prepare for and schedule the appropriate training. The CAT Functional Coordinator will oversee all activities associated with developing JIT training materials.

3.3 CONDUCT KICKOFF MEETING

The objective of the BA Kickoff Meeting is for the CATs to demonstrate that they have acquired or identified all relevant information required to successfully analyze the BA. Conversely, this meeting also serves as an opportunity to document the team's difficulties in accessing necessary information and raising issues to the CAT Functional Coordinator for assistance. The primary output of this activity will be project leadership approval for the CATs to proceed with the BA analysis and agreed upon JIT training requirements.

3.4 CONDUCT JIT TRAINING

Based on recommendations provided by the CATs and a review of the BA Kickoff Package, the CAT Functional Coordinator will coordinate appropriate training for the CATs. The following types of training will be provided to the teams:

1. **Formal PeopleSoft University Training**. Formal instructor-led training will be conducted for the major PeopleSoft modules relevant to the BA analysis. JR&IO will approve all formal PeopleSoft University training.
2. **"Train the Trainer."** For specific components related to a BA, team members will receive training from the appropriate source. This training will primarily take the form of a product demonstration, followed by hands-on exploration and familiarization.
3. **"Meanwhile" Training**. The teams will also receive methodology training to clarify questions arising from the BA analysis Methodology and this Requirements Development Plan. The teams will review PS functionality relevant to their BA. The teams also will begin

their review of existing artifacts to broaden their understanding of the BA and begin developing their initial BA models based on the scope of the BA.

3.5 DEVELOP INITIAL BUSINESS AREA MODELS

The CATs will develop a set of initial models to facilitate and focus the teams in depth analysis efforts. These models are based on information and artifacts collected and reviewed during preparation of the BA Kickoff Package.

3.5.1 Develop Business Area Activity Model

The CATs will develop an initial high-level activity model in Rational Rose depicting activities that enable the execution of processes in the BA under analysis. The activity model provides a pictorial context and description for the processes that are modeled within a BA and serves as the starting point for conducting an in-depth analysis of the BA. The activity model will provide the CATs with a basis for estimating the number and scope of the Use Cases to be developed during BA analysis.

3.5.2 Develop Business Area Use Case Model

Upon completion of the initial BA activity model, the CATs will develop an initial Use Case model for the BA in Rational Rose. The initial Use Case model will represent all actors involved with the BA and all Use Cases required to complete the processes associated with the BA.

Note: The initial BA activity model and initial BA Use Case model are expected to develop as in depth analysis of the BA is performed.

3.5.3 Recommend Business Area Schedule Adjustments

Based on development of the initial activity and Use Case models, the CATs will develop a more detailed project schedule that identifies the specific tasks in each of the major activities and the team member(s) responsible for each task. The CAT Lead will provide recommended schedule changes to the CAT Functional Coordinator. The CAT Functional Coordinator will present the adjusted project schedule to the Chief, Requirements and Reengineering Division, JR&IO, for decision. If approved, JR&IO will make adjustments to the master project schedule and advise JPMO of the schedule adjustment.

3.6 DEFINE FUNCTIONAL REQUIREMENTS

Business rules are needed to fully document the business requirements of the entire personnel and pay system enterprise. The CATs will document Business Rules (BR) in the form of a structured English statement that expresses specific business requirements contained in references. The CATs must link the BRs to the appropriate references and to the Use Cases within the BA. Further, all requirements are loaded into the Rational Enterprise. Detailed procedures for traceability within Rational are addressed in the appropriate appendix.

Ultimately, the CAT Functional Coordinator will be responsible for identifying and communicating the personnel and pay interdependencies for all artifacts within each business area.

3.6.1 Analyze References

The CATs will review references compiled to date to ensure that all U.S. Public Laws and DoD/Service-level policy, guidance, and regulations affecting the BA have been identified. Service and DFAS representatives on the CATs will identify any changes, updates, and/or deletions to the gathered references, as well as obtain any additional Service-level references relative to the BA. The CATs will provide reference update information to the CAT Functional Coordinator, who will maintain the Reference Web Page, and who will also solicit Service and DFAS assistance in maintaining up-to-date references. The CATs can access links to up-to-date DoD and Service references from the DIMHRS Reference Web Page. (Detailed instructions for reviewing and maintaining references can be found in Appendix F of this document.)

3.6.2 Develop DIMHRS Use Case

The CATs will develop DIMHRS Use Cases to account for all activities required to perform the processes associated with a BA. A DIMHRS Use Case is a hybrid of standard business and system Use Cases, but its essential focus is to describe the functional requirements of the interaction with DIMHRS and its associated business workers.

3.6.2.1 Identify Actors

The CATs will begin Use Case development by identifying and describing the roles to be performed in completion of the Use Case. The CATs will review the DIMHRS Project Glossary in RequisitePro to identify previously defined actors for potential re-use. Newly defined actors will be added to the DIMHRS Project Glossary in RequisitePro.

3.6.2.2 Develop Use Case Diagram

The CATs will use Rational Rose to lay out a graphic depiction of the Use Case, using standard UML methodology. The Use Case diagram will include all applicable actors and will show all appropriate <<includes>> and <<extends>> relationships.

3.6.2.3 Outline Use Case Specification

The CATs will access MS Word through Rational RequisitePro to develop the Use Case specification, using the DIMHRS Use Case Template (see Appendix E). The CATs will describe the Use Case preconditions and define the basic flow involved in completing the Use Case. The CATs will identify potential alternatives and exceptions to the basic flow, and define the post-conditions that are expected to result from the completion of the basic Use Case flow.

3.6.2.4 Detail Use Case Specification

Once the Use Case outline is developed, the CATs will expand the Use Case specification to provide a detailed description of the basic, alternative, and exception flows. The detailed Use Case specification provides a framework on which to hang the BRs, IRs, and references associated with the Use Case. All requirements are associated with the appropriate Use Case steps through RequisitePro's traceability matrices (see below).

While detailing the Use Case specifications, the CATs should pay close attention to the potential for reuse of existing requirements, particularly IRs. As IRs and BRs for a given specification step are identified, the CATs will review the existing requirements in RequisitePro to determine whether the requirement in question has already been defined, or whether a modification to a previously-defined requirement should be proposed (see Appendix G, Business Rules Procedures Guide, and Appendix H, Information Requirements Procedures Guide).

3.6.3 Establish Traceability

Using RequisitePro traceability matrices, the CATs will create links between tagged requirements (see Figure 3-2 above). Requirements will be linked as follows:

Parent Use Cases will be traced to FP&A processes.

Business rules will be traced to references and the Use Case.

Information requirements will be traced to business rules and to references if required (see Appendix H for further guidance).

3.6.4 Personnel/Pay Functional Requirements Integration

During the analysis of each BA, the CAT responsible for the BA will coordinate its activities with the CAT responsible for pay type analysis. The requirements related to personnel events will be combined with the requirements related to the associated pay types to create integrated Use Cases.

3.6.4.1 Develop Personnel Requirements

As described in Section 3.6, the CATs will document references, business rules, and information requirements related to the BA. Each CAT will identify those requirements that establish pay eligibility for each of the pay types assigned to the BA under analysis and provide those requirements to the CAT responsible for pay type analysis during a structured collaboration meeting.

3.6.4.2 Develop Pay Type Computation Requirements

In support of each CAT's BA analysis, the CAT responsible for pay type analysis will document references, BRs, and IRs that are necessary to perform calculation for each pay type.

3.6.4.3 Produce Integrated DIMHRS Use Cases

Upon receipt of the eligibility requirements, the CAT responsible for pay type analysis will combine the sets of personnel and pay computation requirements. The resulting combined set of requirements will be used to develop an integrated DIMHRS Use Case, using the process described in Sections 3.6.2 and 3.6.3 of this plan.

3.6.5 Document DoD/Service Policy Issues

During BA analysis, the CATs will be alert to opportunities for redesigning DoD business activities to institute improved, standardized, or streamlined processes. When the CATs identify an apparent anomaly or discrepancy related to DoD or Service policy, or an opportunity for improving DoD or Service processes, the CATs will describe the situation and raise it as a question to the CAT Integration Team. If the CAT Integration Team is unable to adequately address the question, it will be forwarded to the CAT Functional Coordinator who will, if necessary, bring the question to the attention of the Chief, Requirements and Reengineering Division, JR&IO. The CAT Functional Coordinator will either return an authoritative answer to the originating CAT or direct the CAT to develop the item as an issue.

Once an item has been identified as an issue, the originating CAT will document the issue, including proposed resolutions, using the Issue Resolution Form Template (see Appendix B). The documented issue will be included in the BA Requirements Package for delivery to the Director, JR&IO. At the Director's direction, the CAT Functional Coordinator will initiate the issue resolution process.

Note: Issue resolution may require the CATs to readdress aspects of the BA analysis because the resolution may constitute a change to the BA requirements.

3.6.6 Develop Pay Authorization & Computation Business Rules

CAT 3 will have ultimate responsibility for using the DFAS developed business rules for pay authorization and computation to help create an integrated set of rules impacted by pay events.

Once received from the DFAS, CAT 3 will review and analyze the pay authorization and pay computation business rules. These will become the baseline for personnel related business rule development. While maintaining the integrity of the baseline BRs, each CAT will add HR-related business rules and information requirements, specific to their respective business areas. CAT 3 will schedule and lead a collaborative analysis process to document business rules and use cases as follows:

- For each BR within the documents received from DFAS, determine the CAT(s) responsible for that rule. Notify the appropriate CAT(s).
- Schedule and conduct coordination meetings with CAT representatives. Facilitate full coordination meeting in which all CATs should be represented if the subject Pay Type has an impact on their specific Business Area. During the coordination meetings, participants will review the rules in the package for completeness.
- Enter eligibility rules, calculation rules and IRs into Rational Enterprise Suite.

- Participate in CAT peer reviews as required. CAT 3 participates and assists with the review of the output documents related to the pay items.

3.7 PERFORM BPR/BPI ON DOD AND SERVICE PROCESSES

As an important corollary responsibility to their functional requirements definition work, the CATs act as JR&IO's primary focal point for identifying, investigating, and describing opportunities for reengineering and improving military human resources business processes. Throughout the BA analysis process, the CATs perform activities that have the potential for highlighting situations within DoD and the Services that can be improved through various measures, such as streamlining individual processes, implementing common processes across Services, establishing common authority levels for control of processes, developing standard information requirements, and automating process implementation or process support. As described in the DIMHRS Issue Resolution Plan, the JR&IO will shepherd identified opportunities through a structured review and resolution process, involving all affected parties.

3.7.1 Reference Review

The intensive analysis of DoD and Service references, combined with the collaborative nature of the CAT analysis sessions, provides an environment for discovery of outdated policy guidance and non-standard Service processes, while the mutual review of policy guidance allows the CATs to highlight "best practices" and identify alternative means of satisfying process requirements. In addition, the in depth analysis of policy requirements allows for isolation of truly functional requirements, as distinct from process requirements imposed by legacy systems.

3.7.2 Business Area Process Definition

Although a full-scale fit/gap analysis effort will be required to determine the potential impact on DoD and Service processes of implementing COTS functionality, the process definition efforts of the CATs provide an early opportunity to identify areas in which Department and Service policies and practices can be modified to take advantage of the industry best practices inherent to COTS technology. The CAT PS Consultants will make use of their knowledge of the PeopleSoft HRMS and similar tools to provide an "early warning system" that allows the CATs to target business processes that appear susceptible to improvement through the adoption of commercial practices.

3.7.3 Modification to COTS or Service-Specific Business Rules

For areas where modifications to the COTS product may be required or where a Service has requested a Service specific business rule, the decision to support the potential modification or Service specific rules will be based on three questions. The questions are:

- Is the modification or difference mission essential?

- Does the Department or Service gain efficiency?

- Is there a negative effect on the Service member if this modification or difference is not included?

If the answer to any of these questions is affirmative, the potential modification or Service specific rule(s) will be documented in the requirement-. From the perspective of the CATs, any requirement that would result in either a modification of COTS or a Service-specific business rule must be treated as an issue and the documentation for moving the issue forward should include detailed description and rationale.

3.8 CONDUCT PEER REVIEW

Upon completion of the BA deliverables, all BA artifacts will undergo peer review. This process will be conducted in accordance with the DIMHRS Peer Review Plan. The peer review process involves a formal inspection of form and content for all deliverable artifacts. The CATs are responsible for correcting all defects and answering/resolving all questions and issues identified during peer review. The following artifacts will be reviewed:

- Business Area Use Case Specification
- Business Area Use Case Diagrams
- Business Area Activity Model
- Business Area Use Case Activity Diagram(s)
- Business Area Information Requirements Report
- Business Area Business Rules Report
- Business Area References Report
- Business Area Issue Templates

3.9 PLACE UNDER CONFIGURATION MANAGEMENT

Upon completion of updates resulting from the peer review, and approval of the artifacts by JR&IO, the CAT Lead will inform the CAT Functional Coordinator that the BA Requirements Package is ready to be placed under configuration management. The CM Manager will baseline the BA Requirements Package according to the DIMHRS (Pers/Pay) Functional Requirements Configuration Management Plan.

3.10 DISTRIBUTE BUSINESS AREA PACKAGES

The CAT Functional Coordinator will distribute the BA Requirements Package to the Chief, Requirements and Reengineering Division, JR&IO, for further distribution to the Services, DFAS, and JPMO for review and comments. The BA Requirements Package will contain the following artifacts:

- Business Area Executive Summary
- Business Area Use Case Specification
- Business Area Use Case Diagrams
- Business Area Activity Model

- Business Area Use Case Activity Diagram(s)
- Business Area Information Requirements Report
- Business Area Business Rules Report
- Business Area References Report
- Business Area Issue Templates

3.11 REQUIREMENTS REVIEW AND VALIDATION PROCESS

In order to ensure the developed system meets the needs of the customer, review and validation of the functional requirements are critical. Following approval of the delivered artifacts by the Director, JR&IO, the BA package will be sent to the Services, JPMO, and DFAS for review and comments. Each group will consolidate comments for delivery back to JR&IO for review. At that time, an internal Review Session will be convened to discuss and consolidate all comments. After final internal review by JR&IO, changes and comments will be incorporated, as appropriate, into the final delivered package, following established CM guidelines.

APPENDIX A – DIMHRS ISSUE RESOLUTION PROCESS

This appendix outlines the DIMHRS (Pers/Pay) issue resolution process. Issues are identified through COTS Analysis, Workshops with Subject Matter Experts, the Joint Integration Group and Executive Steering Committee discussions, as well as from other sources. All issues identified are addressed through the same review process.

Issue Identification: All issues are fully documented to ensure an audit trail of recommendations, comments, and decisions. Some issues may be documented that need not be analyzed for review and resolution. These include: issues where there is consensus among the Services and no policy impact; process changes where all Services concur; Service-unique requirements with no impact to policy; and working-level requirement definition issues. However, all issues identified under this process are documented to provide traceability to the requirements.

An issue is documented when:

- There is an inconsistency between the law and the execution of the law in DoD/Service policy.
- There is an inconsistency between the DoD policy and implementation of the policy in Service Regulations.
- Analysis indicates there is a potential difference between Department functional requirements and the law.
- A change to DoD military personnel/pay process would significantly improve a DoD business practice.
- A change to DoD military personnel/pay process would significantly simplify implementation of COTS with no negative impact on mission or resources.
- There is an inconsistency between DoD Policy and another Department or Agency in the application of a law or policy.
- There is a gap in the ability of the COTS product to support functional requirements.

Issue Review Process Action Offices/Groups: There are four groups associated with the Issue Review Process. The offices are:

Joint Requirements and Integration Office (JR&IO): The JR&IO staff consists of GS Civilians and Service personnel who are personnel/pay generalists. The Service personnel are complemented by Subject Matteer Experts from all Services, Components and DFAS. The JR&IO uses the Subject Matter Experts to provide in-depth expertise necessary to specify detailed requirements.

Joint Integration Group: The Joint Integration Group, a committee of senior military personnel and pay policy experts within OSD, Joint Staff and Military Service Departments, provides high-level review and coOperational Requirements Documentination on all JR&IO products and recommendations. Issues are resolved by the Joint Integration Group if possible. Issues which cannot be resolved by the Joint Integration Group are elevated to the Executive Steering Committee for resolution. Joint Integration Group members are briefed regularly and kept informed of DIMHRS (Pers/Pay) program milestones and status. The Joint Integration Group meets monthly.

Issue Focus Groups: The Issue Focus Groups are convened by JR&IO to review complex issues that require analysis prior to resolution. They are ad-hoc groups and may consist of Subject Matter Experts with varying expertise depending on the issue to be considered. The Issue Focus Groups review the issue and associated documentation and make recommendations.

Executive Steering Committee: The Executive Steering Committee is made up of senior leaders from OSD, Joint Staff and Military Service Departments. The Executive Steering Committee provides a final review and coordination on all program products and recommendations. Issues which cannot be resolved by the Joint Integration Group are forwarded to the Executive Steering Committee for resolution. Even issues which are resolved by the Joint Integration Group are forwarded to the Executive Steering Committee for final confirmnation and discussed on an "exception" basis if any member wants to further discuss any issue. If appropriate, issue documentation is forwarded to the appropriate internal staffing organizations within the Department as received from the Joint Integration Group to expedite the review and staffing of the recommendations. Issues which cannot be resolved by the Executive Steering Committee are forwarded to the USD(P&R) for decision. Decision packages for USD (P&R) include statements of varying positions.

The Issue Review Process: The issue review process follows a five-step procedure.

1. The first step is an initial assessment of the issue by the JR&IO staff in terms of the issue type (change to the law, DoD or Service policy or Regulation, functional process, or issue stemming from COTS analysis).

    •

2. The second step is to document the issue in the Issue Resolution Report. Updates of the report are sent to the Joint Integration Group at least 10 days before each Joint Integration Group meeting. Issues are also prioritized for resolution by the following criteria:

    • Critical Path Functional Issues. An issue is designated as a critical path functional issue if it must be resolved to move the program forward. Critical path issues are suspensed for resolution as quickly as possible, with an Issue Focus Group convening within one week of the identification of the issue as critical. The total time from identification as critical to resolution should not exceed one month.

- Non-Critical Path Functional Issues. An issue is designated as a non-critical path functional issue if it must be resolved, but it is not in the critical path for the program and does not warrant a quick review. Non-critical path issues are suspensed for a more relaxed review cycle, with resolution to be completed through the normal Joint Integration Group cycle. The total time from identification to resolution should not exceed six months. (Non-critical issues would become critical if closure is required to proceed with program design and development.)

- Issues with Law Implications. An issue is designated as an issue with a law implication if the Department is constrained in streamlining a business process or developing a more efficient process because of a legal requirement for the existing process. These issues are identified and gathered into packages for bi-annual submission to Congress for consideration and relief. OSD staff will prepare and staff the packages and report back to the Joint Integration Group on progress.

- COTS Gap Issues. An issue is designated as a COTS Gap Issue if the COTS analysis has identified a gap between the capabilities of the COTS product and the requirements of the Department. If these gaps can be resolved by changing a DoD business process without impact on mission or efficiency, that route will be considered in categories one or two above. COTS Gap Issues are those gaps that represent valid requirements that cannot be addressed by the COTS product. These issues are identified and gathered into a package for consideration by the JPMO after the completion of the major business areas of the Comprehensive Analysis. In order to assure COTS Gap Issues are resolved consistently and to ensure that the total impact of all gaps is fully understood, these gaps are not resolved on a one-by-one basis. For each gap, the JPMO will provide alternatives for meeting the requirement. These alternatives may include: modification of the COTS product; extension of the COTS product; interface to a Government Off-The-Shelf capability or other COTS product; negotiation with the vendor to include a new capability in the commercial product; or other alternative. The JPMO will also provide information on the cost, schedule and performance impact of the various alternatives offered.

At any time during this process and/or for complex issues, the JR&IO may convene an Issue Focus Group to develop alternatives for resolution of the issue.

3. The third step is to provide the Joint Integration Group with the opportunity to comment on the issue. All comments are maintained in the Issue database and provided back to the members via reports from this database. Joint Integration Group members are asked to provide a single, consolidated response for each Service.

    - If the Joint Integration Group resolves the issue, the decision is incorporated into program analysis and products and forwarded to the Executive Steering Committee for confirmation.

    - If the issue cannot be resolved by the Joint Integration Group, but the Joint Integration Group determines that sufficient information exists for the Executive

Steering Committee to reach a decision, the issue is forwarded to the Executive Steering Committee for decision

- Finally, if the Joint Integration Group cannot resolve the issue and insufficient information exists, then the following actions occur:

  - An Issue Focus Group is scheduled before the next Joint Integration Group meeting based on input from the Joint Integration Group. Similar issues are grouped to leverage the time of the Issue Focus Group in reviewing issues simultaneously.

  - The Issue Focus Group reviews the issue and supporting documentation to include the recommendation. The Issue Focus Group produces a recommendation and may also request additional information to support its analysis. Minority opinions are documented.

  - The results of the Issue Focus Group are forwarded to the Joint Integration Group members prior to the next Joint Integration Group meeting for their review and validation

4. The fourth step is for those cases when the Joint Integration Group cannot make a decision and the issue must be elevated to the Executive Steering Committee. A package is prepared for the Executive Steering Committee, which provides the issue documentation, the Joint Integration Group comments, the results of the Issue Focus Group (if there was one) and any dissenting views. The Executive Steering Committee reviews the issue and chooses one of the following three options:

   - Provide a decision.
   - Return the issue to the Joint Integration Group for more information.
   - Forward the packet to USD (P&R) for decision.

   If the Executive Steering Committee is unable to provide a decision on an issue submitted for the second time, the Issue Resolution Report and Matrix is forwarded to the USD (P&R) for a decision. Response timeframes are determined for each issue depending on the perceived complexity of the issue and the criticality of resolution.

5. When the policy decision adjudication process is completed, the issue recommendation and the final decisions are returned to the JR&IO, documented in the issue resolution report, and incorporated in the DIMHRS (Pers/Pay) functional requirements. This further updates functional requirements that have been or will be transferred to the Joint Program Management Office for incorporation into the DIMHRS (Pers/Pay) documents.

APPENDIX B – ISSUE RESOLUTION FORM TEMPLATE

Issue Number: Date Referred from Team:

Issue Name:

Issue Type:

Originating Team:

Issue Discussion:

ALTERNATIVES:

Alternative #: 1
Alternative Name:
Alternative Discussion:
Disposition:
Recommended?:
Comments:
Minority Comments:

Alternative #: 2
Alternative Name:
Alternative Discussion:
Disposition:
Recommended?:
Comments:
Minority Comments:

Alternative #: 3
Alternative Name:
Alternative Discussion:
Disposition:
Recommended?:
Comments:
Minority Comments:

ISSUE RESOLUTION FORM DESCRIPTION

The team originating a Comprehensive analysis issue will enter the following information on the issue form:

Issue Number: Ignore this field, it will be completed by the CAT Functional Coordinator.

Date Referred from Team: Enter the date the team submitted the issue to the CAT Functional Coordinator.

Issue Name: A short description of the issue, not to exceed 255-characters.

Issue Type: Indicate the type of issue, Policy Change or Process Change.

Originating Team: Indicate the team that is submitting the issue, based on the following list:

- JR&IO Management
- Comprehensive Analysis Team 1
- Comprehensive Analysis Team 2
- Comprehensive Analysis Team 3
- Comprehensive Analysis Team 4
- Comprehensive Analysis Team 5

Issue Discussion: Provide a clear, concise and detailed description of the functional requirement. Describe the functionality gap, purpose, business justification, impact of not implementing, etc. Identify the appropriate reference or authoritative source of guidance.

ALTERNATIVES (Identify as many as required)

Alternative #: A numeric sequence starting with 1.

Alternative Name: A short description, not to exceed 255-characters.

Alternative Discussion: Describe the proposed policy and process changes. Identify the affected DoD and Service references.

Disposition: Select appropriate classification for the proposed alternative.

Resolved: No Change / Policy Change / Closed—Deferred, or
For Review

Recommended (Yes / No): Indicate "Yes" for the recommended alternative only. This may change based on the JR&IO's review.

Comments: Enter any commentary based on the recommended alternative.

Minority Comments: If there are dissenting opinions related to the alternative, enter them here.

APPENDIX C – DIMHRS PEER REVIEW PLAN

DIMHRS PEER REVIEW PLAN

1.1 OVERVIEW

The purpose of this document is to describe the methodology for conducting peer review inspections of artifacts developed by the DIMHRS (Pers/Pay) project team. Peer reviews will be performed on all deliverable components of Comprehensive Analysis artifacts defined in Section 3 of the DIMHRS Requirements Development Plan (RDP), and all defects will be identified and corrected, prior to delivery to JR&IO and being placed under configuration management control.

As the title implies, individuals involved in performing similar work will conduct peer review inspections. Thus, artifacts generated by one Comprehensive Analysis Team (CAT) will be reviewed members of the other CATs, led and coordinated by members of the Project Integration Team. Reviewers will inspect work products for proper format, content, and structure, identifying inaccuracies and inconsistencies for correction by the team that initially created the work products.

1.1 PEER REVIEW TEAMS

3.6.6 Composition

The Peer Review Coordinator determines the composition of the peer review team. Each peer review team consists of a Moderator, a Scribe (from the CAT Integration Team, two or more Work Product Reviewers from the CATs and the CAT Integration Team, and one or more Work Product Reviewers from the Joint Requirements and Integration Office (JR&IO) staff. The members of the CAT whose artifacts are currently under inspection must attend the review to answer questions and address issues raised by the Work Product Reviewers. The CAT Functional Coordinator has the option of acting as a Work Product Reviewer and/or participating in the review.

3.6.6 Roles and Responsibilities

Peer Review Coordinator

- Identifies individuals to serve as peer review team members
- Provides guidance to peer review teams regarding procedures, focus, scope, and constraints of the peer review process
- Collates and analyzes peer review metrics
- Adjusts project peer review processes, as necessary

- Makes suggestions to Project Technical Lead regarding potential improvements to project processes
- Archives and maintains peer review artifacts

Peer Review Moderator

- Plans and manages peer review meeting
- Coordinates with CAT under review to identify artifacts to be inspected
- Issues peer review invitation package to Reviewers, Scribe, and other required attendees
- Facilitates discussion of work products and makes final determination for identifying discussion items as either defects or issues
- Serves as a Work Product Reviewer
- Tracks defects and issues to closure
- Provides the Peer Review Coordinator with final set of review artifacts

Work Product Reviewer

- Examines work products to identify discussion items
- Reviews functional content of the delivered work products. Based upon the provided references, the reviewer should look at the following:
    - The functionality of the Business Area (BA)
    - Whether or not the references that are cited support each work product (e.g., business rules, information requirements (IRs), Use Case specifications)
    - Whether or not the business rules fully support the functional requirements and are not compound rules (i.e., only one concept per rule)
    - Whether or not the IRs fully support the functional requirements and are decomposed to the lowest level
    - Whether or not the Use Case diagrams fully support the functionality of the BA
    - Whether or not all of the Use Cases within the BA have been fully defined and documented
- Reviews all work products for adherence to established guidelines (e.g., format, spelling, naming conventions, Use Case standards) set forth in the Requirements Development Plan and appropriate appendices
- Records all defects/issues using the Peer Review Log

- Provides a paper copy of defects/issues to all attendees of the Peer Review
- Delivers detailed analysis as input to peer review meeting
- Provides additional input during peer review meeting to facilitate understanding of identified discussion items

Peer Review Scribe

- Consolidates discussion item input from Reviewers prior to peer review meeting by direction of the Peer Review Moderator
- Records defects and issues in Peer Review Log during peer review meeting by direction of the Peer Review Moderator
- Assists Moderator in finalizing peer review meeting results and tracking defects and issues to closure

1.1 PEER REVIEW PROCESS

3.6.6 Work Products To Be Reviewed

As a CAT approaches the date assigned for delivery of a Business Area Requirements Package, the team will review its artifacts to ensure that they are ready to undergo peer review (see Table 1, below). The entry criteria identified for each type of artifact represent the very minimum requirements that must be met for the artifact (or elements of the artifact) to be provided to the Peer Review Team for evaluation.

WORK PRODUCT	ENTRY CRITERIA
BA Activity Diagram	• Business Area activity diagram and component shapes are named appropriately (e.g., the diagram conveys the proper functionality)
Use Case Diagrams	• Each Use Case (other than <<includes>> and <<extends>> Use Cases) has at least one initiating actor • Use Case diagram and components are named appropriately (e.g., the name properly conveys the functionality of the Use Case)
Use Case Specifications	• Each Use Case in the accompanying Use Case diagram is described by a Use Case specification • Use Case specification contains, at a minimum, one pre-condition, one basic flow, and post-condition • Each step is linked to at least one business rule

WORK PRODUCT	ENTRY CRITERIA
Use Case Activity Diagrams	• Use Case activity diagram and component shapes are named appropriately (e.g., the diagram conveys the proper functionality)
Information Requirements Report	• All required attribute fields are assigned valid values • Linked to at least one business rule or reference, as required, per Appendix H • Information requirements are named according to established convention (see Appendix H of the DIMHRS RDP)
Business Rules Report	• All required attribute fields are assigned valid values • Linked to at least one reference, per Appendix G • Linked to at least one Use Case specification step, per Appendix G • Business rules are named according to established convention (see Appendix G of the DIMHRS RDP)
References Report	• All required attribute fields are assigned valid values • Linked to at least one business rule or information requirement, as required • References are named according to established convention (see Appendix F of the DIMHRS RDP)
BA Issue Template	• The proper issues are attached to the BA package

Table 1 – Peer Review Entry Criteria

3.6.6 Peer Review Preparation

The Peer Review Coordinator, in consultation with the CAT Functional Coordinator, will be responsible for identifying Peer Review Team members. The CAT Integration Team will furnish personnel to act as Moderator and Scribe, and may provide additional personnel to act as Reviewers. The CAT Functional Coordinator will act as an ex officio member of all Peer Review Teams and will identify members of JR&IO to serve as Reviewers. The CATs will furnish personnel to act as Reviewers, with the restriction that no CAT will provide Reviewers for the team evaluating the BA Requirements Package(s) developed by that CAT.

The Peer Review Coordinator will consult the DIMHRS Integrated Project Schedule and establish an appropriate timeframe for the peer review. This timeframe will include a period of not less than five business days for the Reviewers to evaluate the BA Requirements Package and one half-day for the peer review meeting itself. Once the schedule is established, the Peer Review Coordinator will notify all Peer Review Team members, as well as the CAT Facilitator

of any CAT that is providing personnel to serve on the Peer Review Team. The Scribe, once identified, will be responsible for securing an appropriate facility for the peer review meeting.

The Moderator and Scribe will coordinate with the CAT Facilitator to positively identify all artifacts for review and with the IT Administrator to generate a master set of the artifacts for distribution. Once the Moderator has taken delivery of the BA Requirements Package from the CAT Facilitator, the BA Requirements Package and no changes will be made to any part of the package or its related artifacts until the peer review meeting is completed. The Scribe will combine the artifacts with copies of the peer review checklists (under development) and the Peer Review Log (under review) to create the review package, copy it as necessary, and distribute the package to the Peer Review Team members.

The Reviewers and Moderator will use the peer review checklists to evaluate the CAT artifact packages. Any elements of a work product that appear to be absent, incomplete, inaccurate, out of context, or otherwise appear not to meet the published standards will be noted in the Peer Review Log as discussion items. Once a Reviewer has completed his or her evaluation of the artifact package, the Reviewer will provide an electronic version of the completed Peer Review Log to the Scribe. The Scribe will be responsible for consolidating all Reviewer input and disseminating the consolidated Peer Review Log to all peer review participants.

3.6.6 Peer Review Meeting

The Moderator convenes and leads the peer review meeting, establishing and enforcing the meeting ground rules. Ground rules should emphasize the non-confrontational nature of the review process and focus participants on the purpose of the review, which is to provide the client with a set of complete, consistent, quality work products. At the Moderator's discretion, members of the CAT whose products are under review may open the meeting with a brief overview of the Business Area analyzed and the artifacts produced.

The Moderator leads a review of the consolidated Peer Review Log, and may request clarification of a given item from the Reviewer who raised it. The Moderator may also request that the CAT whose artifacts are under review provide additional background on the subject of a discussion item. Once the discussion item is clearly understood by all parties, the Moderator will make a decision regarding the characterization and resolution of the discussion item (see table, below). To reduce confusion and increase buy-in, the Moderator should take care to explain the reasoning behind a given characterization. The Scribe will make a record of main points of discussion as directed by the Moderator, clarification by Reviewers or CAT members, and discussion item characterization and resolution.

Characterization	Appropriate Resolution
Defect	Correct item to conform to standards. In absence of standards, correct as directed by the Moderator.
Issue	Research to answer open question(s).
	Request guidance from appropriate source(s).
	Mark item as "open" awaiting further action beyond control of peer review participants.
Information Point	Retain as part of peer review record for historical value.

Table 2 - Discussion Item Characterization

3.6.6 Post-Peer Review

Following the peer review meeting, the Scribe will consolidate all notes of the peer review into a clean copy of the consolidated Peer Review Log, including all points of discussion and all required resolutions of discussion items. The Scribe will distribute the new version of the Peer Review Log to all participants. Any questions or concerns regarding the record of the peer review meeting should be directed to the Moderator.

The CAT will be responsible for correcting all defects identified in the consolidated Peer Review Log and will report the progress of its rework to the Moderator. The Moderator, the CAT Lead, and the CAT Facilitator, in consultation with the CAT Functional Coordinator, will assign responsibility for addressing issues identified in the Peer Review Log; responsible parties will report their progress to the Moderator. All rework will be completed within the timeframe established by the Peer Review Coordinator.

When the Peer Review Coordinator receives notification from the Moderator that all required rework has been completed, the Peer Review Coordinator will forward the package to JR&IO for approval. Once JR&IO approves the package, the Configuration Manager will place the BA Requirements Package and all of its related artifacts officially under configuration management. The Configuration Manager will assign Product Control Numbers and monitor changes to the BA Requirements Package, as described in the DIMHRS (Pers/Pay) Functional Requirements Configuration Management Plan.

APPENDIX D – DIMHRS (PERS/PAY) FUNCTIONAL REQUIREMENTS CONFIGURATION MANAGEMENT PLAN

DIMHRS (Pers/Pay)

Functional Requirements

Configuration Management Plan

1 INTRODUCTION

Configuration Management (CM) is the discipline of applying technical and administrative direction to functional requirements analysis and software development projects to maintain the integrity of the product throughout the project's full life cycle. CM enables project teams to monitor and improve the quality of delivered products and make product evolution cost effective and manageable.

1.1 PROJECT PERSPECTIVE

The BAH project team supports the Office of the Under Secretary of Defense (OUSD) (Personnel and Readiness [P&R]) Joint Requirements and Integration Office (JR&IO). The project team is comprised of OUSD (P&R) JR&IO members, contractors, and subcontractors. Artifacts that the project team develops during analysis are placed under CM control prior to BAH delivering them to the customer.

A portion of the BPR analysis work involves developing and documenting the functional system requirements for the Defense Integrated Military Human Resources System (Personnel and Pay) (DIMHRS Pers/Pay). The project team places these functional system requirements under CM control once they are approved by JR&IO. JR&IO will then deliver them to the DIMHRS (Pers/Pay) Joint Program Management Office (JPMO) for the next phase of development, where the JPMO Configuration Manager controls them.

1.2 PURPOSE

The purpose of this Configuration Management Plan (CMP) is to identify and describe the CM policies and methods the JR&IO will use for Functional Requirements for DIMHRS (Pers/Pay). Throughout this CMP we refer to this project as DIMHRS (Pers/Pay).

1.3 SCOPE

This CMP establishes and provides the basis for uniform and consistent CM practices for all DIMHRS (Pers/Pay) project team activities in support of OUSD(P&R) JR&IO. This plan applies to the DIMHRS (Pers/Pay) project team, to include subcontractors and consultants.

This CMP encompasses the CM practices for artifacts the DIMHRS (Pers/Pay) project team develops. When JPMO receives the artifacts for system development, the Government exercises configuration control.

1.4 CONFIGURATION MANAGEMENT OVERVIEW

1.4.1 Configuration Control

This CMP contains the configuration control processes for new products ready for release and products that the project team has delivered. This plan incorporates the framework for CM implementation established by the Software Engineering Institute's (SEI) Capability Maturity Model (CMM) for Software, Version 1.1. The Project Configuration Management Official (PCMO) is responsible for configuration control. The BAH Configuration Control Board (BAH - CCB), approves changes to baselined products and the PCMO tracks all changes. In addition, the PCMO controls internal project management documentation.

Configuration control of delivered DIMHRS (Pers/Pay) artifacts rests with the DIMHRS (Pers/Pay) CCB. The BAH project team responds to change directives from the DIMHRS (Pers/Pay) CCB. The PCMO is responsible for tracking incoming change directives, project team responses, and managing change to configured products. Figure 1.1 illustrates this relationship.

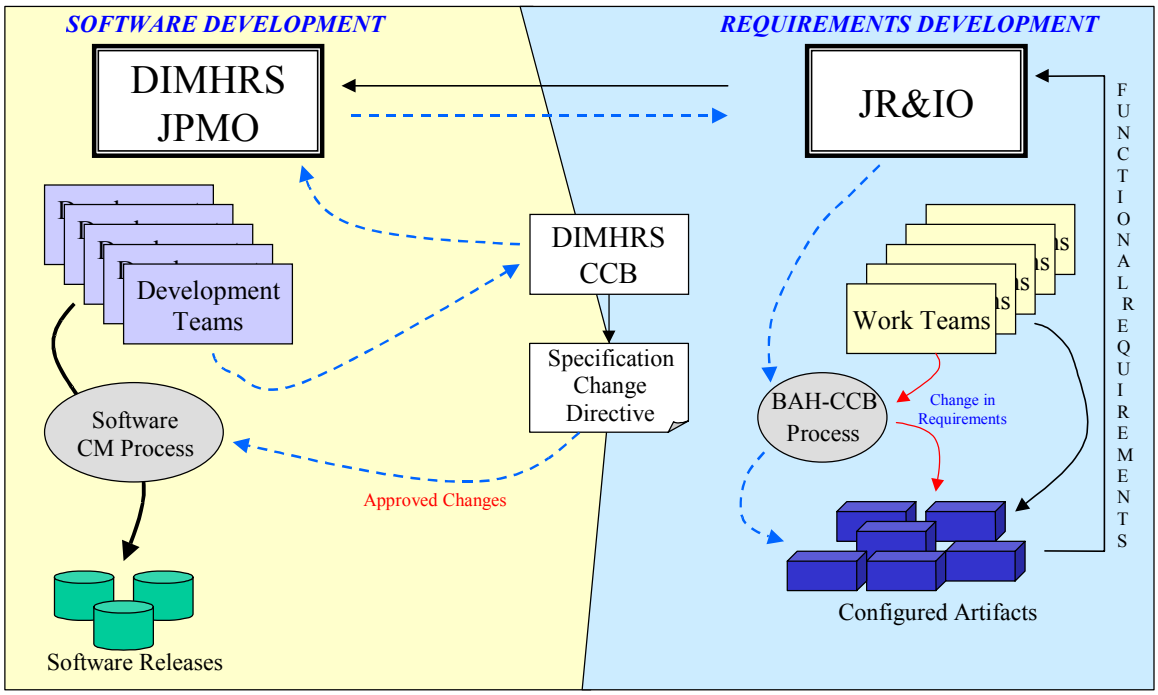

Figure 1-1. DIMHRS (Pers/Pay) Change Control

1.4.2 Key Personnel

All project staff have responsibility for CM. See Subsection 2.2 for additional information.

1.5 DOCUMENT STRUCTURE

This CMP comprises six sections and three appendices.

Section 1, Introduction, defines the purpose of the CMP and provides a brief overview of the main sections of the plan.

Section 2, CM Management and Organization, defines the organizational structure, roles, and responsibilities of personnel who must implement effective CM.

Section 3, Configuration Management Administration, describes CM libraries and tools and the product release process.

Section 4, Configuration Item Identification, describes CM identification processes.

Section 5, Configuration Control, describes the change control and baseline control procedures.

Appendix A, Glossary of Terms and Abbreviations, explains the terms and abbreviations used in this document.

Appendix B, Change Request (CR) Form, contains the CR Form to be completed for modifying a configured item.

1.6 REFERENCES

This plan cites the following documents.

- Electronic Industries Association/Institute of Electrical and Electronics Engineers 12207.2-1997, *Software Life Cycle Processes – Implementation Considerations*, 1997.
- Software Engineering Institute (SEI) Capability Maturity Model (CMM)
- Joint Standard J-STD-016-1995, Standard for Information Technology Software Life Cycle Processes Software Development, 30 September 1995.
- Military Handbook 61, Configuration Management Guidance, 30 September 1997.

2 CM MANAGEMENT AND ORGANIZATION

This section describes the BAH CM staff organization structure and identifies the personnel and resources required to perform CM activities.

2.1 ORGANIZATIONAL STRUCTURE

The PCMO reports to the BAH PM for the DIMHRS (PERS/PAY) project. The PCMO is responsible for documenting and implementing CM standards, plans, processes, and procedures for configuration identification, change control, status accounting, reviews, and audits. The BAH PM provides central coordination and direction for CM activities and ensures that the project receives the support needed to establish and maintain effective CM processes.

2.2 CONFIGURATION MANAGEMENT RESPONSIBILITIES

The BAH PM and Project Technical Lead have overall responsibility for project CM and make final decisions concerning CM policies and issues. The PCMO is responsible for developing CM policies and for directing, coordinating, and monitoring all CM functions. The CM staff establishes the initial configuration and monitors all changes to the locally controlled baseline. The staff interacts with the project teams to ensure implementation and application of CM practices and procedures. In addition, the CM staff maintains configuration control of internal project management documentation and uses tools to safeguard products technically, physically, and procedurally from unauthorized disclosure, modification, or destruction.

The DIMHRS (PERS/PAY) project teams must know and comply with the CM policies and procedures in this plan. Managers at every level ensure that all project personnel implement and enforce CM policies. The following describes the CM-related responsibilities of project personnel.

2.2.1 All Project Team Members

The CM responsibilities of DIMHRS (PERS/PAY) project team members include:

- Review, understand, and support this CMP.
- Comply with established version management procedures.
- Comply with established change control procedures.
- Comply with established configuration audit procedures.

2.2.2 Project Configuration Management Official

The PCMO is responsible for overseeing the definition and implementation of all project CM processes and procedures. Primary functions of the PCMO are as follows:

Develop the CM plan and associated procedures.

Develop, coordinate, and enforce the methodology and standard procedures for identifying and documenting project artifacts.

Direct the implementation of CM actions based on the CMP.

Maintain records of and conduct periodic audits and inventories of all project artifacts under CM control.

Train project members on their CM duties and responsibilities.

Establish and control product baseline definitions.

Assist project leaders in defining and determining product baselines.

Implement CSA procedures.

Implement appropriate change control procedures.

Facilitate the QA audits of compliance with CM standards and procedures.

Provide input to the BAH PM concerning personnel, resources, software, and equipment required to implement the CM program.

Maintain the CM Library, which includes specifications, developed artifacts, configuration records, releases, and documentation.

Control all changes to project baseline configurations through formal change processing and BAH - CCB procedures.

2.2.3 Project Team Technical Leads

The project team technical leads perform essential CM tasks that include:

- Review all modifications to artifacts to ensure consistency and continuity within each business area and across the architecture.
- Participate in technical reviews of artifacts before submitting them to peer review and configuration control.
- Analyze and evaluate proposed changes to artifacts under CM control.
- Coordinate change requests (CR) that affects other business functions.
- Verify the implementation of CRs.
- Participate as members of the BAH - CCB.

2.2.4 Configuration Control Board (CCB)

The purpose of the BAH - CCB is to review all CRs and determine their disposition. All BAH - CCB members or their designated representatives must be present at each meeting. Each BAH - CCB representative is responsible and accountable for presenting technical and business concerns related to each CR and for ensuring the overall integrity and continuity of the project

architecture. The BAH - CCB meets on as needed basis.

The BAH - CCB reviews all CRs and the chairman determines their disposition. The BAH - CCB's tasks include:

Review CRs to ensure their technical merit in terms of a specific technical solution that supports the business intent of the CR and the overall architecture based on the following:

- Business content and context that accurately meet the need of the target business function and the overall business functionality of the architecture
- Impact on the project cost
- Impact on the project schedule

Ensure that the initial configuration of baselined requirements and all changes meet the requirements of the contract or other direction the BAH PM or Project Technical Lead provides.

Provide recommendations to the BAH - CCB Chairman.

The BAH - CCB consists of the following members who perform the listed functions:

- Chair – Technical Lead (or other project member the TL directs)
- Moderate the proceedings.
- Review each CR with regard to the specific business requirements and enterprise impacts.
- Assess the impact of each change on available resources, the resources required to implement each change, and the impact on the current requirements development schedule.
- Decide the disposition of all issues brought before the BAH - CCB.
- Client Representative
- Provide the client's point of view for all issues brought before the BAH - CCB.
- Recording Secretary - PCMO
- Publish and confirm meeting schedules and meeting information such as location, time, and date.
- Prepare and distribute the BAH - CCB meeting agenda and CSA reports as needed and distribute CR supporting documentation.
- Provide records of all proposed changes and BAH - CCB decisions.
- Maintain a chronological archive of BAH - CCB records.
- Provide project members with the current status of changes when necessary.
- Document and track action items.
- Member – CAT Teams Coordinator
- Review each CR with regard to its ability to support the technical and business needs of the OUSD (P&R) standardized data requirements and the needs of the business data model.
- Assess the impact of each change as relates to completed and under-development business function packages and the data architecture at large.
- Assess the impact of each change on available resources, the resources required to

implement each change, and the impact on the current schedule.

- Recommend courses of action for the implementation of the proposed changes.
- Members –CAT Technical Leads
- Provide technical input concerning the scope and impact of CRs their respective teams originate.
- Assess the impact of proposed changes on the business function package as related to completed and ongoing development work.
- Provide impact analyses for CRs when the BAH - CCB chairman so directs.

2.2.5 Training

The Configuration Manager provides CM training to the CM staff. The training includes using Rational ClearCase and ClearQuest to perform CM functions.

3 CONFIGURATION MANAGEMENT ADMINISTRATION

3.1 CM BASELINE LIBRARY AND CM REPOSITORY

The CM staff maintains the CM Repository, the Online Product Library, and the CM Library. The CM Repository contains electronic copies of inventories and document logs. Only the CM staff has access to the CM Repository. The Online Product Library contains electronic copies of the non-Rational components of completed packages, both delivered and awaiting delivery, and resides on a network drive. The CM Library contains printed copies of inventories, delivered business function packages, documentation, and document logs.

3.1.1 Online Product Library

The baseline package in Rational serves as the Online Product Library for Rational products. The Online Product Library for all other products resides on a network drive. Only the CM staff can write to the Online Product Library; all other project personnel have read-only access. The Online Product Library contains current versions of all released products.

The CM staff maintains copies of all completed products in the Online Product Library.

The CM staff maintains archived electronic copies of all completed products on CD. Only the CM staff can authorize access to the archives.

3.1.2 CM Repository

In addition to all delivered products, the CM Repository contains the following:

Inventories. The CM Repository also contains inventories of Government-furnished information (GFI), Government-furnished equipment (GFE), and COTS software. The CM staff updates these inventories every 6 months, archives previous inventories, and stores them in a separate area. As the project acquires items, the CM staff inventories these items and maintains a log, by item type. The log contains the following information: Item type, item name, identifying number (if applicable and available), number of copies, location of item, Point of Contact (POC) for item, and remarks.

Documentation. The CM staff is responsible for maintaining one complete copy of all documentation related to the FEDSIM Task Order in the CM library and recording the documentation in the CM Repository. Copies of all products in the CM Repository are available upon authorization from the BAH PM.

3.2 TOOLS

The CM staff uses two automated tools, Rational ClearCase and Rational ClearQuest to perform CM functions for the DIMHRS (PERS/PAY) project.

3.3 RELEASE PRODUCTION AND CONTROL

3.3.1 Release Process

The following steps describe the release process. (NOTE: These steps include the steps that add the products to the baseline.) See Figure 3-1, Release Process Flow.

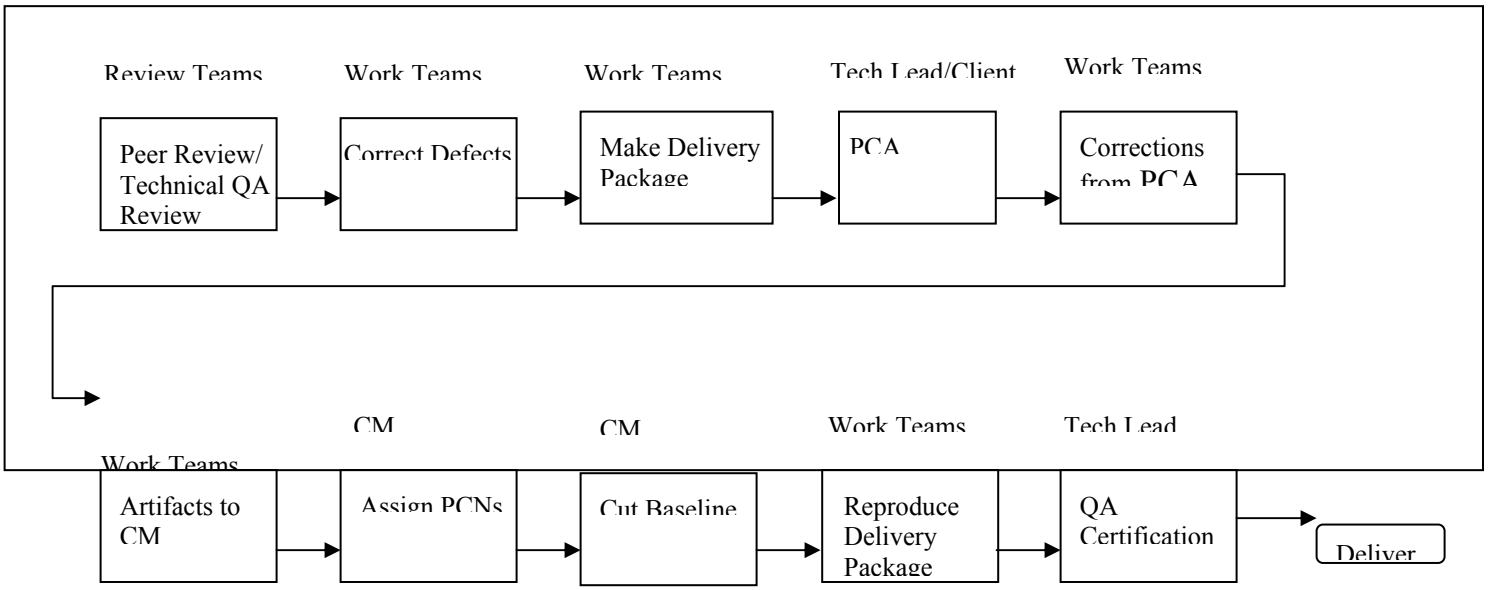

Figure 3-2. Release Process Flow

3.3.2 Release Contents

The BAH PM, the Project Technical Lead, PCMO and the Work Teams determine the contents of each release. Their decision is based on the customer's requirements and the types and impact of changes to any previously released product.

Deliverable DIMHRS business function packages that JR&IO passes to the Services include the following:

- Business Area Activity Model
- Business Area Use Case Diagram
- DIMHRS Use Case Activity Model (If necessary)
- DIMHRS Use Case Specifications
- References
- Business Rules
- Information Requirements
- Issues

4 CONFIGURATION ITEM IDENTIFICATION

Configuration item identification is the process of defining, organizing, and naming developed artifacts. The purpose of configuration item identification is to establish and maintain a basis for control of an artifact throughout its life cycle. Identifying artifacts is the first step of the CM process and continues throughout the life of the project. Configuration item identification applies to all deliverable products and selected work products. Artifacts are the building blocks of baselines and releases. Releases take place in accordance with the project schedule.

4.1 ARTIFACT CONTROL

4.1.1 Configuration Item Creation

The development approach for the overall DIMHRS (PERS/PAY) business architecture is incremental and iterative. The purpose of this approach is to reduce the overall development effort to manageable, discrete functional activities that the project team analyzes, examines, models, and documents incrementally. The team establishes and updates each artifact in each increment in accordance with a precise set of procedures.

The CM staff is responsible for tracking developed artifacts and for baseline control and release. Developed artifacts and governing and supporting documentation are items that CM must track and control.

4.1.2 Document Creation and Control

The following steps describe the process for controlling new project documents.

- When producing a new document, the document owner notifies the master schedule maintainer of the requirement and planned completion and delivery dates.
- The document owner notifies the PCMO of the new requirement.
- The document owner completes the draft and submits it to a peer review.
- After the peer review the document owner makes any necessary changes resulting from the review.
- The Technical Lead review the document. (This applies to deliverable documents only.)
- The document owner submits a printed and electronic copy of the document to CM.
- CM assigns a PCN.
- CM enters the document in the document log. The log includes the document name, PCN, owner, scheduled delivery date, actual delivery date, QA certification date, and version number.

- For a deliverable document, the document owner provides the document to the BAH PM for delivery.

4.1.3 CM Control of Configuration Items

After a project team completes development of a deliverable package and the package undergoes a technical QA review, CM assigns PCNs to the package's individual artifacts. At that point, the complete package, consisting of all the artifacts, comes under CM control.

After assigning the PCNs, CM requests the IT group to create a new baseline that includes the Rational Projects and any other documents needed for the Business Area package. The CM staff places the artifacts to the CM library and CM repository.

Once an artifact comes under CM control, no one can change the artifact without following the change control process.

4.1.4 Artifact Numbering

CM assigns unique identifiers to all artifacts as follows:

Table 4-1. PCN Identification Table

ARTIFACT	PCN
Actor	A00000
Business Rule	B00000
Document	D00000
Information Requirement	I00000
Business Area Activity Model	M00000
DIMHRS Use Case Specification	C00000
DIMHRS Use Case Requirement	R00000
DIMHRS Use Case Activity Model	U00000
Business Area Use Case Diagram	Z00000

4.2 ASSET CONTROL

The CM staff formally controls the inventory of Government-furnished hardware and software components the project team uses in support of the project. This control is in the form of an inventory spreadsheet that the CM staff maintains in the CM Repository.

4.2.1 Hardware Configuration Items

Hardware components can be either contractor-provided equipment or GFE. When either BAH or the government receives Government-furnished hardware designated for the project, designated personnel inventory the units received, record the serial numbers or other identifying information, and report the information to the PCMO. The CM staff labels the hardware and logs it into the CM Repository for tracking purposes. Recorded information includes all identifying information, the current location of the item, the previous location of the item when applicable, and point-of-contact information for verification of location and operational status. Any personnel who relocate hardware configuration items must notify CM.

4.2.2 Software Acquired by BAH

When the BAH project team receives contractor-provided, Government-furnished, or COTS software, the software falls under CM control. With the assistance of the IT Group, CM labels it and logs it into the CM Repository for tracking purposes. Required information includes the name and version number(s) of each software package, the number of copies, serial numbers or other identifying information, and any related license and maintenance agreements.

4.2.3 Component Labeling and Numbering

CM controls each component throughout the business architecture definition phase of the project and assigns each component a unique identifier. The CM staff attaches a label with this identifier to each component.

4.2.4 Component Identification

Hardware, Software, and GFI. The identification scheme in Table 4-2 applies to all hardware, COTS software, and GFI.

Table 4-2. Identification Scheme

Hardware	1xxx
COTS Software	2xxx
Documentation (GFI)	3xxx
xxx represents unique control numbers the PCMO assigns.	

The following label appears on all GFE, GFI, and COTS Software:

FEDSIM OUSD (P&R) Government Property Nxxx

Figure 4-3. GFE, GFI, and COTS Product Label

5 CONFIGURATION CONTROL

5.1 CHANGE CONTROL

Change control consists of the evaluation, coordination, approval or disapproval, and implementation of changes to artifacts. Key elements of the change control system include the change control process, the BAH - CCB, and the CR form.

The DIMHRS (PERS/PAY) project team uses the change control process to change artifacts, accomplish life cycle cost savings, prevent or allow slippage in an approved project schedule, and implement regulatory requirements.

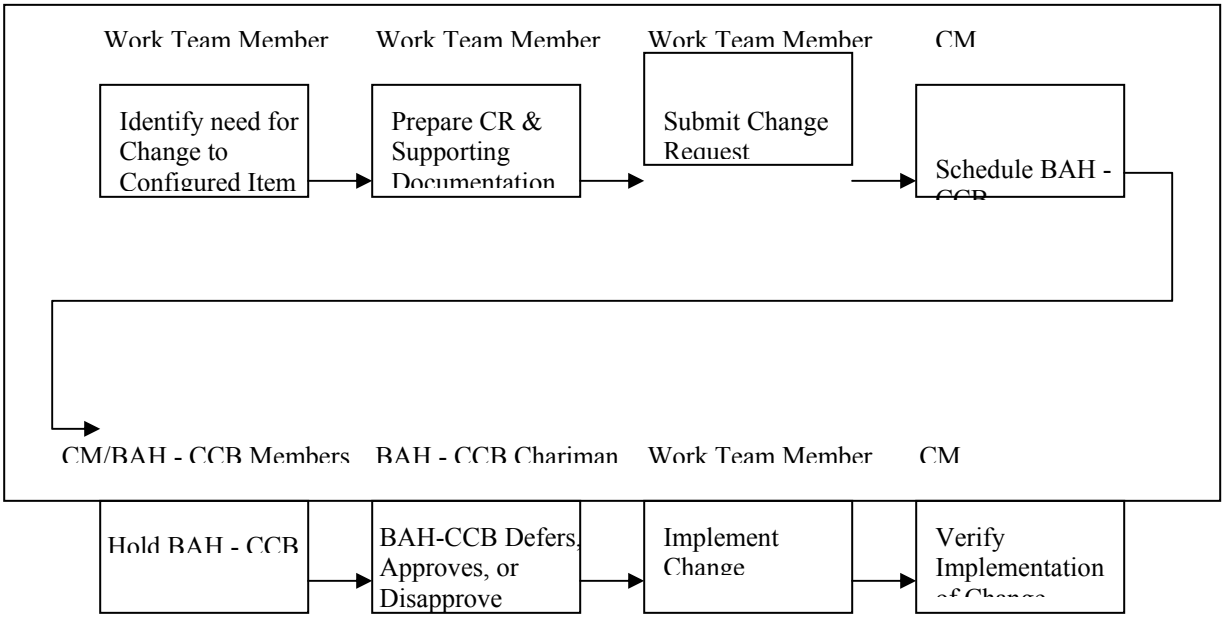

Figure 5-4. Change Control Process Flow

5.1.1 Procedures for Changing Business Artifacts

Any project member (contractor or Government) can identify problems or needed changes in the artifacts and documentation. The project teams control changes to the business area packages under development. Changes to documents (RDP, Data Management Plan) arise from various sources and CM tracks them separately. Changes to all other artifacts require CRs. The CM staff is responsible for managing the change control process and reporting the status of all CRs to the BAH PM, the Project Technical Lead, and the BAH - CCB.

The change process begins with an analysis of a concept that requires changes to artifacts. Based on the results of the analysis, project team members document each identified problem in a CR. Project team members submit CRs when they determine that configured artifact require modification or update that may affect the system design and development.

The following table illustrates when project members must submit change requests for artifacts under CM control.

Table 5-1. When To Submit A CR

ARTIFACT TYPE	SUBMIT A CR WHEN
Actor	Changing the name or text
Business Rule	Changing the name or text
Information Requirement	Changing the name or text
DIMHRS Use Case Specification	Changing the name or text Adding, deleting, or changing flows
DIMHRS Use Case Requirement	Changing the name or text
Business Area Activity Model	Adding, modifying or deleting activities
Use Case Activity Model	Adding, modifying or deleting activities
Business Area Use Case Diagram	Adding, deleting, or modifying any diagram elements

5.1.2 Processing Change Requests

When project teams find that artifacts under CM control require changes, team members follow the set of procedures below. These procedures apply to changing any baselined business artifact except a document.

- A team member who identifies the need for a change to a business artifact prepares a CR. The team member provides details of the requested change and describes the scope of the change, as well as the effect of not making the change on the overall architecture. The team member delivers the CR to the appropriate team lead.
- The team lead evaluates the CR, verifying that the request is valid and submits the initial CR without detailed evaluation to CM.
- CM includes the CR in the agenda for the next BAH - CCB meeting.
- The evaluation team or the originating team conducts a thorough analysis and documents the findings. The documentation must include references to all functional areas or artifacts that this CR impacts and the effort necessary to implement the change. The team compiles all required documentation and provides it to CM. The evaluation team leader or team lead notifies the PCMO when the analysis is complete.
- At any point during analysis, team members may identify additional artifacts that the change under consideration affects.
- The BAH - CCB evaluates the CR and approves, disapprove or defers implementation of the change. Refer to Section 5.3 for further information on BAH - CCB policies and procedures.
- For an approved CR, the BAH - CCB may specify the target release that will include the change. The PCMO notes the BAH - CCB decisions, and notifies the originators of CRs that the BAH - CCB approves for implementation.

- If the BAH - CCB decides to implement a change at a later date, the panel defers the change and the PCMO notifies the originating team technical lead. The CR remains open until the implementation is complete unless the BAH - CCB chairperson directs otherwise.
- If the BAH - CCB approves a CR, the team technical lead oversees the implementation and documents the changes. The team technical lead notifies the PCMO of the updated CR. The updated CR fully details the implementation procedures and indicates whether the implementation is complete and how long it took to implement.
- If the BAH - CCB decides to disapprove the change, the PCMO notifies the originating team technical lead. The PCMO documents the justification for disapproval and closes the CR.
- The CM staff reviews and verifies that the CR form is complete, and closes the CR. The CM staff includes the CR information in the appropriate release documentation.

For each CR, the team technical lead must include specific documentation that defines both the technical structure and the business definition of the subject artifact.

5.1.3 Change Request Form

Change Requests will be submitted using the Change Request Form outlined in Appendix B. Users who submit CRs are originators. The CR form consists of three sections. The CR originators enter data in the Identification and Change Description. The CM staff enter information in the BAH – CCB Actions section.

Clearcase and clearquest Operational Standards

To be completed once we configure and deploy the tools.

5.2 ESTABLISHING AND CONTROLLING A BASELINE

Baseline control is the securing of all baselined packages and their artifacts, which are changed only through a strict set of procedures and documented approvals. For DIMHRS (PERS/PAY) artifacts, the PCMO controls the baseline. The CM staff baseline packages after completion of technical QA reviews. Project personnel change the baseline using CRs the BAH - CCB processes and approves.

Baselines provide the official standard on which project personnel base subsequent work and to which they make only authorized changes. The CM staff establishes new baselines as products reach completion. Only the BAH - CCB can approve changes to the established baseline.

The CM staff maintains copies of previous baselines that are available if it is necessary to revert to a previous baseline.

5.3 BAH Configuration Control Board

The BAH - CCB reviews all CRs and determines the disposition of each. The BAH - CCB approves the implementation of all changes to products under CM control. The BAH - CCB meets at the direction of the BAH - CCB chairperson to address the status of existing and new CRs. The BAH - CCB publishes and disseminates minutes of each meeting.

5.3.1 BAH - CCB Members

The BAH - CCB consists of representatives from different areas of the DIMHRS (PERS/PAY) project. Panel members review items on the BAH - CCB agenda and provide recommendations to the BAH - CCB chairperson. In addition, BAH - CCB meetings are open to individuals who have direct responsibility for implementing CRs.

5.3.2 Preparation for BAH - CCB Meetings

The BAH-CCB chairperson will distribute notification of the change requests to be analyzed and the time and date of the BAH-CCB meeting to all BAH-CCB members. The BAH-CCB members will prepare for the BAH-CCB meeting by reviewing the change requests in the notification, analyzing the impact of the change request and documenting any questions/issues/concerns/recommendations.

5.3.3 Conduct of the BAH - CCB

All BAH - CCB members or their designated representatives must be present at each BAH - CCB meeting and must be familiar with the change requests under consideration. BAH - CCB discussions are limited to agenda items. The BAH - CCB reviews, discusses, and determines the disposition of each presented CR. If no one on the BAH - CCB disagrees with a presented recommendation, the chairman approves the recommendation. If any BAH - CCB member objects to a CR, the members discuss and resolve the problem and the chairman decides what amendments are necessary and whether or not to approve the CR. The BAH - CCB also specifies which CRs will be in which release. Based on recommendations made during the meeting, the BAH - CCB chairperson summarizes the action to be taken in response to each item. Possible actions by the BAH - CCB include:

- Approve or disapprove changes.
- Defer implementation of an approved change. If the BAH - CCB chairperson determines that the change should be implemented but that other items have higher priority, the BAH - CCB targets the change for inclusion in a specific release.
- Approve, disapprove, or defer development of a new business artifact.
- Recommend that the BAH PM or Project Technical Lead notify the customer of the impact if a deferred CR affects the project schedule or budget.
- Appoint project team members to special analysis teams to investigate CRs when necessary.

- Assign due dates for completion of CRs.
- Assign approved changes to scheduled releases.

The PCMO records the disposition of CRs and documents BAH - CCB decisions concerning the CRs and releases. The PCMO also maintains an action item list, documenting required actions, responsible parties, and expected completion dates.

At the conclusion of the BAH - CCB meeting, members review the action items and CR dispositions, verify the date for the next meeting, discuss the next meeting's agenda, and conduct other business requiring decisions by the BAH - CCB. After the meeting, the PCMO completes the following tasks:

Prepares, publishes, and distributes the BAH - CCB meeting minutes to the client representative, BAH - CCB members, Project Technical Lead, and other designated project personnel.

Distributes the action item list to BAH - CCB members and other tasked personnel.

5.3.4 IMPLEMENT APPROVED CHANGE REQUESTS

If the BAH - CCB approves a CR, the project team executes the following steps:

- The PCMO notifies the team technical lead so the artifact owner can make the approved changes.
- The artifact owner updates the artifact and enters explanatory and descriptive notes as necessary.
- The team technical lead updates the implementation section of the CR form with the details of the implementation.
- The team technical lead schedules a technical QA review.
- The team technical lead notifies CM that the change is complete.
- When updating the baseline, the CM staff checks completed CRs against the artifacts to verify changes.

6 CONFIGURATION STATUS ACCOUNTING

CSA is the process of recording and reporting the status of an evolving product. CSA procedures ensure that CM develops, maintains, and disseminates accurate records for all new or modified products. CM records and reports only the information necessary to manage the data effectively and economically. CSA provides management personnel with information they need to track development of a product and to determine whether project personnel implement BAH - CCB approved changes correctly.

CSA requires that CM track all products carefully from their initial development through requests for change, approval or disapproval of those requests, and implementation of approved changes. CSA enables the PCMO to record and monitor all changes to baselines. The identification, indexing, and accounting functions of the CSA process support the CM functions of identifying a product package, all of its components, and the status of all proposed changes to the package. The intent of CSA is to monitor changes and to ensure that project personnel do not lose or delay changes during processing or implementation.

6.1 CSA INFORMATION

The CM staff produces and maintains configuration status records and reports for both internal and external purposes. Internal purposes include preparation of periodic status reports that reflect the artifacts and the status of changes to them. External purposes include CM status reporting to the BAH PM, the Project Technical Lead, and the customer.

CSA records and reports enable the PCMO to:

- Track the status of each CR
- Obtain a complete history of each CR
- Cross-reference the CR with affected artifacts and business function packages
- Obtain a complete history of the changes to each artifact
- Obtain data necessary to prepare status reports.

6.2 CSA REPORTS

CSA reports describe the status of artifacts and CRs.

6.2.1 Change Tracking Reports

The information in each of these reports includes, but is not limited to, the CR numbers, status of changes, disposition of the requests, PCNs of affected artifacts, and the date the originator generated the CR. These reports may include time, PCN, or other elements. The combination of formatted and ad hoc reports provides the BAH PM with information that reflects the status of product configuration throughout the course of the project.

6.3 INVENTORY AUDIT

The CM staff conducts periodic inventory audits to ensure accountability for GFE, GFI, and COTS. The CM staff compares the current inventory to the physical location of the GFE, GFI, and COTS and updates the inventory accordingly. When the audit reveals a discrepancy, the CM staff resolves the issue. The PCMO includes audit results in status reports.

GLOSSARY OF TERMS AND ABBREVIATIONS

GLOSSARY OF TERMS AND ABBREVIATIONS

GLOSSARY OF TERMS

Artifact An artifact is any discrete model, business rule, report, entity, or other product or item produced during the project.

Change Control Change control is the CM procedure and method for recording, tracking, and reporting changes to baselined products.

Change Request A change request is an automated form that team members must use to request any change to baselined products.

Configuration Control Board A configuration control board is the approval authority for changes to baselined products.

Configuration Item A configuration item is all or part of a deliverable product that satisfies an end-use function. This includes any discrete data model, hardware, or documentation that is used or produced during the product life cycle.

Configuration Status Accounting Configuration status accounting is the process of recording and reporting the status of an evolving configuration item.

Deliverable A deliverable is a product that either the Statement of Work or the client requires BAH to produce.

Final Product A final product is one that has passed a Physical Configuration Audit and that BAH has released to JR&IO for further release to the Services, DFAS, and JPMO.

Incremental Development Incremental development is the method of developing a system in a sequence of builds, each build incorporating part of the planned capabilities, until the system is complete.

BAH - CCB The BAH - CCB is a group of DIMHRS (PERS/PAY) project team members who review proposed product changes and decide the disposition.

Product Version Number The product version number specifies which version of the product the project team is working on or has released.

Release A release is the formal notification of the distribution of an approved product version.

Version Management Version management is the process of controlling both changes and the contents of each version of a product.

ACRONYMS AND ABBREVIATIONS

BAH PM	Booz Allen Hamilton Project Manager
BPI	Business Process Improvement
BPR	Business Process Reengineering
CCB	Configuration Control Board
CD	Compact Disk
CM	Configuration Management
CMM	Capability Maturity Model
CMP	Configuration Management Plan
COTS	Commercial off-the-shelf
CR	Change Request
CSA	Configuration Status Accounting
GFE	Government Furnished Equipment
GFI	Government Furnished Information
JPMO	Joint Program Management Office
JR&IO	Joint Requirements and Integration Office
OUSD	Office of the Under Secretary of Defense
P&R	Personnel and Readiness
PCA	Physical Configuration Audit
PCN	Product Control Number
PERS	Personnel
POC	Point of Contact
QA	Quality Assurance
SEI	Software Engineering Institute
VDD	Version Description Document

Change Request Form

1. Identification

- Change Request Number:
- Change Request Title:
- Change Request Type: (Problem or Enhancement)
- Change Request Configuration Item Artifact Type: (IR, BR, DUC, …)
- Configuration Item Artifact Title:
- Configuration Item PCN:
- Team:
- Date Submitted:
- Originator:
- Change Request Priority: (High, Medium , Low)

2. Change Description

- Proposed Change Type : (Name Change, Model Change, …)
- Current Configuration Item Name:
- Current Configuration Item Description:
- Description of the Proposed Change:
- Justification of the Proposed Change:
- Estimated Time to Implement the Proposed Change:
- Affected Configuration Items:
- Resolution:

3. BAH - CCB Actions

- Action: (Approved, Disapproved or Deferred)
- Implementers:
- Scheduled Implementation Date:
- Actual Implementation Date:

- Actual time to implement change:
- CM Validation:
- Validation Date:
- Release Package:

APPENDIX E – DIMHRS USE CASE TEMPLATE

Draft Template

Basic Flow Name

DIMHRS (Pers/Pay)

DIMHRS Use Case Specification

Version 1.0

Revision History

Date	Version	Description	Author

Table of Contents

DIMHRS Use Case Specification (DIMHRS Use Case Specification)

2 USE CASE NAME

2.1 DESCRIPTION (PROVIDE A SHORT DESCRIPTION OF THE USE CASE)

2.2 ACTORS (LIST THE ACTORS IN THIS USE CASE)

3 PRE CONDITIONS (STATE THE PRE CONDITIONS IN THE NORMAL FLOW)

LIST THE PRE CONDITION(S) (WHEN CREATING THE PRE CONDITION REQUIREMENT, HIGHLIGHT THE ENTIRE PRE CONDITION SECTION AND MAKE 1 REQUIREMENT.)

4 FLOW OF EVENTS

4.1 BASIC FLOW - <<NAME THE BASIC FLOW>> (FOR EASE OF USE IN REQUISITEPRO, PREFIX NAME WITH "BASIC FLOW – ") INCLUDE THE DESCRIPTION OF THE START OF THE BASIC FLOW (THIS USE CASE BEGINS…)

1. Use numbering for each step; identify all refs, business rules and IR's for each step by name.

<<Each DIMHRS Use Case step, except Manual steps (not to be automated), must have a Business Rule, related Reference, and Information Requirements. If the step is a manual one, note it in the text of the step.>>

Business Rule Name	Reference Name	Information Requirements Name

4.2 ALTERNATIVE FLOWS

4.2.1 <<Flow Name>> (List each Alternative Flow and prefix the name with "Alternative Flow # - ". Annotate when the Alternative Flow starts by naming the step where the flow

starts and stops in quotations. Alternative Flows should refer to a Basic Flow step at the end.)

1. Use numbering for each step; identify all refs, business rules and IR's for each step by title.

Business Rule Name	Reference Name	Information Requirements Name

4.3 EXCEPTION FLOWS

4.3.1 <<Flow Name>> (List each Exception Flow and prefix the name with "Exception Flow # - ". Annotate when the Alternative Flow starts by naming the step where the flow starts in quotations. The Post Condition of the Exception Flow is the last step of the Flow.)

1. Use numbering for each step; identify all refs, business rules and IR's for each step by title.

Business Rule Name	Reference Name	Information Requirements Name

5 POST CONDITIONS

LIST THE POST CONDITION(S) (WHEN CREATING THE POST CONDITION REQUIREMENT, HIGHLIGHT THE ENTIRE POST CONDITION SECTION AND MAKE 1 REQUIREMENT.)

6 EXTENSION POINTS

LIST EACH USE CASE THAT IS AN EXTENSION OF THIS USE CASE. PROVIDE A SHORT DESCRIPTION OR CONDITION IF NECESSARY. (WHEN CREATING THE EXTENSION POINT REQUIREMENT, HIGHLIGHT THE ENTIRE EXTENSION POINT SECTION AND MAKE 1 REQUIREMENT.)

7 SPECIAL REQUIREMENTS

LIST AND PROVIDE A SHORT DESCRIPTION OF ANY NON-FUNCTIONAL REQUIREMENTS. (WHEN CREATING THE SPECIAL REQUIREMENT REQUIREMENT, HIGHLIGHT THE ENTIRE SPECIAL REQUIREMENT SECTION AND MAKE 1 REQUIREMENT.)

8 REFERENCES (FOLLOW RDP FOR REFERENCE NAMING CONVENTIONS)

Ref Title	Ref Name	Ref Text	Date	Chg. #

9 BUSINESS RULES (FOLLOW RDP FOR REFERENCE NAMING CONVENTIONS)

Business Rule Name	Definition

10 INFORMATION REQUIREMENTS (FOLLOW RDP FOR REFERENCE NAMING CONVENTIONS)

10.1 APPROVED INFORMATION REQUIREMENTS (THESE ARE FROM THE ACCEPTED AND APPROVED LIST)

Must be identified for each step where used in the Use Case.

Information Requirement Name	Definition

10.2 NEW INFORMATION REQUIREMENTS (ADDITIONAL IR'S IDENTIFIED BY THE CAT AS REQUIRED FOR SUPPORTING THE USE CASE)

Information Requirement Name	Definition

11 QUESTIONS / ISSUES PENDING RESOLUTION DOCUMENT ANY QUESTIONS RELATED TO THE USE CASE. THE QUESTION CAN BE RELATED TO FUNCTIONAL OR HIGH-LEVEL PEOPLESOFT FIT-GAP. TEAMS NEED TO FOLLOW ISSUE TEMPLATE TO DOCUMENT THE QUESTION. (THESE WILL BE ENTERED INTO REQPRO AS REQUIREMENTS IN THEIR OWN PACKAGE SIMILAR TO IRS, REFS, ETC. THEY WILL BE TRACED TO THE PARENT DUC)

Issue Name	Description

12 ACTIVITY DIAGRAM (HIGH LEVEL PROCESS FLOW MODEL OF THE ACTIVITIES IN THE USE CASE.)

APPENDIX F –REFERENCE PROCEDURES GUIDE

APPENDIX F –REFERENCE PROCEDURES GUIDE

PURPOSE

These procedures describe the responsibilities and procedures for the application of the Personnel & Readiness Business Process Reengineering/Comprehensive Analysis methodology for identifying, collecting, reviewing, and documenting references to recognize the current business.

PROCESS STEPS

Reference analysis is the **foundation** upon which all artifacts are built. To support the development of DIMHRS functional requirements, CAT members must analyze relevant reference documents for Department of Defense (DoD) personnel and pay activities. The CATs must develop kick-off packages that will contain an initial set of references for their specific Business Areas. Because of regular modifications and updates of regulatory information, the personnel and pay references are revised continually. Accordingly, the CAT Functional Coordinator will continually assist the CATs in the discovery of updated reference material throughout the analysis process. The CAT Functional Coordinator will maintain the DIMHRS Reference database and will coordinate with the appropriate outside agencies to ensure the availability and accuracy of current references and their associated Web sites. The CAT to which the Business Area is assigned must review all changes or modifications to reference material for potential impact during the analysis and ensure that changes are analyzed against artifacts already delivered to the JR&IO.

Below is a list of reference types that govern personnel and pay regulation and must be reviewed during an analysis. The examples are not necessarily listed in order of precedence.

United States Code: A consolidation and codification by subject matter of the general and permanent laws of the United States that apply to DoD personnel and readiness.

Presidential documents: Executive orders, administrative regulations, and notices.

Department of Defense Directives (DoDD): Broad policy documents containing what legislation, the President, or the Secretary of Defense requires DoD components to do to initiate, govern, or regulate actions or conduct within their specific areas of responsibility. DoD Directives establish policy and programs and define organizations, missions, and responsibilities.

Joint Chiefs of Staff Publications: Guidance approved by the Chairman of the Joint Chiefs of Staff and issued to the Services, the combatant commands, and the Joint Staff.

Department of Defense Instructions (DoDI): Documents prescribing the manner of, or a specific plan or action for, carrying out policy, operating a program or activity, and assigning responsibilities.

Army, Navy, Air Force, and Marine Corps Service Directives, Instructions, and Regulations: Directives, instructions, and regulations of the specific military Services, including the National Guard and Reserve components.

Federal Non-Department of Defense Regulations: Policy or instructions governing all federal non-DoD regulations relating to personnel and pay (e.g., OPM, VGLI, SGLI, VA, EO).

Other Department of Defense and Military Service Publications: A supplement to a military Service or DoD directive or instruction that provides uniform procedures for managing operational systems and disseminating administrative information.

Some examples of these types of publications are as follows:

Catalog: A detailed listing that describes or indexes a collection of information according to some definite plan.

Directory: A compilation serving to direct, systematically arranged in alphabetical or classed order, such as a list of addresses, affiliations, functions, and similar data.

Guide: A handbook that provides information on a specific subject.

Handbook: A concise reference book on the technical aspect of a particular subject or a compilation of factual data and instructional material not subject to frequent change.

Index: A guide to material arranged by a different scheme from that used for the material itself.

Inventory: A listing of material in a group arranged in the same order in which the actual material is arranged.

List: An itemized record or catalog of information.

Manual: Guidance document consisting of procedures, usually containing examples for performing specific tasks.

Module: A publication that includes specific learning objectives and activities that are designed to be self-instructional and self-paced. A module is usually part of a series of documents. It may contain charts, graphs, fill-in blanks, and examples to aid the learning process.

Pamphlet: A publication of 64 or fewer pages that is complete in itself, perhaps issued in a series that is usually numbered consecutively.

Plan: A presentation of military details in preparing for operations well in advance.

Regulation: A document of general application designed to implement, interpret, or prescribe procedural requirements.

Standard: A publication of technical directions and regulatory material.

PROCEDURES

This section contains information about reference analysis, including related procedures, the outputs, the Rational Enterprise Suite tool used, and procedural guidelines for the analysis.

The reference analysis process begins when the CAT identifies reference material that specifies an existing or a potential business requirement.

During the analysis, the CATs will—

Receive, obtain, and review reference documents for DoD personnel and pay activities.

Identify to the CAT Functional Coordinator and request missing references that are required to complete analysis.

Record relevant reference material (e.g., text/reference location information) that governs the functional requirement in the Rational Enterprise Suite tool.

The CAT Functional Coordinator will adhere to the following procedures when analyzing reference documents:

- Provide revised/updated reference material to the CAT throughout the analysis to determine what impact the revised material will have on the artifact

- Maintain the Reference Internet Bookmark

- Redistribute out-of-scope references to the appropriate CAT

When analyzing reference documents, the CATs will—

Internally review and revise the reference listing developed in the kick-off package to ensure that reference material is germane to the assigned Business Area.

Review public law, federal non-DoD references, DoD / DoDI references, joint references, and Service regulations and applicable references to identify core business requirements for the Business Function

Review, revise, and validate the reference listing

Recommend that the CAT Functional Coordinator redistribute out-of-scope reference material

Request the CAT Functional Coordinator provide reference material that cannot be located in an electronic format

Document and link references in the Rational Enterprise Suite tool (e.g., FP&A, Business Rules, IRs). See Tables F-1 through F-3 for detailed guidance.

STANDARDS

The following standards apply to reference analysis information entered in the Rational Enterprise Suite tool:

Table F-1. Reference Information To Be Recorded in Rational Enterprise Suite Tool

Field	Information (Enter/Select)
Name	Enter the reference type, title, and detail Example: AFMAN 36-2105, Ch. 3, Para. 3.3.4.5
Reference Text	Enter the text of the cited reference. Example: Any person whose initial entry into a Military Service is on or after 1 June 1984 shall serve a period of 8 years from the date of enlistment, appointment, or, when authorized by law, induction. The accomplishment of the obligated period of service shall be determined in regulations established by the Secretary of the Navy.
Web Page Link	Enter the electronic address (URL) where the reference is found. Example: http://www.usapa.army.mil.pdffilesr600_822.
Reference Date	Enter the date for the reference in DD MMM YYYY format. Example: 31 OCT 1995
Reference Change Number	Enter the appropriate change number. Examples: One, Two, Three
Reference Title	Enter the name of the applicable section for the reference Example: Specialty Description Explanation Note: If no section name is available, use the name of the section nearest the section.

Table F-2. Listing of Approved Formats for Reference Types

Reference Type	Title Field Format	Example
U.S. Code	Title Number, USC and Section	Title 10 USC, Sect. 6383
DoD	Short Name, Number, Details	USMEPCOM 40-1, Ch. 7, Para. 7-4
Service	Service Component, Number, and Details	AFI 36-2803, Ch. 3, Para. 3.2.6

Table F-3. Listing of Standard Abbreviations

Word	Abbreviation	Word	Abbreviation
Appendix	App.	Paragraph	Para.
Attachment	Att.	Rule	Rule
Chapter	Ch.	Section	Sect.
Enclosure	Encl.	Subparagraph	Subpara.
Figure	Fig.	Table	Tbl.
Page	Pg.	Volume	Vol.

LINKING REFERENCES

The Rational Enterprise Suite tool can link and establish relationships between requirements of different types (e.g., references and business rules). The following links will be established:

- Business Rules will be traced to a reference (see Appendix G)

- Information Requirements will be traced to a references as required (see Appendix H)

APPENDIX G – BUSINESS RULES PROCEDURES GUIDE

1. PURPOSE

This document provides guidance for researching, creating, linking, and updating business rules as part of the analysis of business activities within the Personnel and Pay (Pers/Pay) domain of the Defense Integrated Manpower and Human Resources System (DIMHRS). It addresses how each of these activities is to be accomplished, how documented, and by whom.

13 PROCESS STEPS

13.1 OVERVIEW

Comprehensive Analysis Teams (CATs) develop business rules (BRs) to describe business concepts contained in U.S. law, DoD and Service policy, guidance, and regulations. Business rules define or constrain specific Business Functions and will guide the design and development of application software used as part of DIMHRS. The business rule definition process begins with reference analysis, which supports the identification of functional requirements.

In general, CATs will record business rules during Use Case development. These business rules are rules that satisfy a critical success factor for the execution of a business function. A critical success factor is something that is required for the function or task to be successful. For example, a critical success factor for the retirement of a military member may be identified during a workshop as the change in the member's status to "retired."

13.2 DEVELOP BUSINESS RULES

2.2.1 CAT Responsibilities. In the course of Use Case development, CATs review guidance documents and develop business rules from which to identify data requirements. If no business rule exists to describe the functional requirement, the CATs create new business rules, documenting the supporting references as necessary.

2.2.2 Identify Need For Business Rule. The CATs review all related references (e.g., public law, regulations, directives, instructions, publications, and manuals) in relation to the identified functional requirements. The team will document verbatim text from each analyzed reference. The text is then reduced into atomic business to ensure that each business rule contains only one business concept. The business concept is then compared across Services to determine whether a single business rule will satisfy the functional requirements of all Services.

2.2.3 Review Existing BRs for Re-use. Using the reference that defines a functional requirement as a key, the CATs review the set of existing business rules in the DIMHRS repository. Existing BRs linked to the reference are examined to determine whether any of the existing BRs satisfy the business concept.

2.2.4 Verify Use Case/Reference Linkage. If a business concept is covered by an existing business rule, the CAT reviews the references, Use Cases, and information requirements associated with the existing business rule. Links are reviewed to ensure that the existing links support the intended business context and to identify additional links that may be necessary.

2.2.5 Develop New Business Rule. If the CATs cannot reuse an existing business rule, then create a new business rule, using the standards identified in Section 3. The CAT develops a unique business rule requirement in Rational and links it to each applicable reference.

2.2.6 Establish Links. Once a new business rule is created, the CAT must establish links between the business rule and the appropriate Use Case step(s) and reference(s).

13.3 MODIFICATION/DELETION OF EXISTING BUSINESS RULES

An approved business rule has a Product Control Number (PCN). When analyzing the business area, the CAT may determine that an approved BR needs to be modified or deleted to satisfy a business need. For a modification, the CAT must create a new BR with the appropriate BA identified as an attribute and a "Status" of "Proposed." The new BR's name will include the prefix "CAT#R, where "#" is the number of the CAT proposing the change. The CAT will not change the original BR until the CAT Technical Lead gets approval from the CAT Integration Team to make the change. Once the CAT has created the proposed BR in Rational, the CAT must submit a CR in MS Word until Rational ClearCase is implemented.

The change request must include the following information:

- ORIGINATOR: (CAT#, CR creator)
- PHONE: (CR creator phone number)
- DATE:
- BA#:
- ARTIFACT NAME/PCN:
- CHANGE TITLE:
- CHANGE DESCRIPTION: (Describe the change requested. When proposing deletion of an approved BR, the proposing CAT must identify what actions will be taken to resolve any links associated with the BR to be deleted.)
- JUSTIFICATION: (Describe the reason(s) the change is required, the impact of the change on other BAs and any other supporting information)

The CAT may have many reasons for modifying a BR in the CR justification. Examples of acceptable reasons include:

- duplicate or redundant concepts in two or more BRs (modify one BR and delete the other BR(s))

- ambiguous definition
- incorrect reference linkage
- definition is inconsistent
- inappropriate name
- multiple concepts (need to break out into single concepts)
- legacy concept

Once the CR for a modification has been approved, the CAT will copy the revised text from the proposed BR into the original BR in the BR Document in Rational. This is necessary to maintain the original PCN and the links to other Use Cases. Once this is done, the CAT will delete the proposed BR to avoid duplicates, and then link the revised original BR to the appropriate Use Case. If the CR is disapproved, the CAT may either delete the proposed BR or revise the CR and resubmit it.

When proposing the deletion of an approved BR, the CAT will create a CR as described above. Again, the CAT will not make any change to the original BR until the CAT Technical Lead gets approval to delete the BR. If the CR is approved, the CAT will change the BR "Status" to "Deleted" and resolve all existing links in Rational, as described in the approved CR.

2.4 TABLE GUIDELINES

When the CATs cannot convey a business rule clearly in text format, CATs may create a table as a last resort to amplify or clarify the business concept. Tables should be used in cases where a change in the valid value of a BR's condition would result in a change to the BR's outcome. In cases where a table is used, the values of a given table row provide the "If…, then…" construct of the BR definition (see Section 3.2.2).

For example, the DoDFMR contains four tables that provide the monthly rates for all active service members. They are as follows:

- DoDFMR Chapter 7A, Chapter 2, Table 2-5 (Monthly Rates for Officers, O-1 through O-10)
- DoDFMR Chapter 7A, Chapter 2, Table 2-6 (Monthly Rates for Commissioned Officers with over 4 years of Active Duty, Grades O-1E through O-3E)
- DoDFMR Chapter 7A, Chapter 2, Table 2-7 (Monthly Rates for Warrant Officers, W-1 through W-5)
- DoDFMR Chapter 7A, Chapter 2, Table 2-8 (Monthly Rates for Enlisted Members, E-1 through E-9)

An example of these tables is shown below:

MONTHLY RATES OF BASIC PAY-- COMMISSIONED OFFICERS, AVIATION CADETS, ACADEMY CADETS, MIDSHIPMEN, AND ROTC MEMBERS -- EFFECTIVE January 1, 2001 (notes 1 & 5)

Rank	Pay Grade	Cumulative Years of Service															
		2 or less	Over 2	Over 3	Over 4	Over 6	Over 8	Over 10	Over 12	Over 14	Over 16	Over 18	Over 20	Over 22	Over 23	Over 24	Over 26
Gen-Advn	O-10 (notes 1 & 2)	8,818.80	8,818.50	8,818.50	8,818.50	8,818.50	9,156.90	9,156.90	9,664.20	9,664.20	10,356.00	10,356.00	11,049.30	11,103.90	11,103.90	11,334.60	11,737.20 Maximum (note 1)
Lt Gen - VADM	O-9	7,550.10	7,747.80	7,912.80	7,912.80	7,912.80	8,114.10	8,114.10	8,451.60	8,451.60	9,156.90	9,156.90	9,664.20	9,803.40	9,803.40	10,004.70	10,356.00 Maximum
Maj Gen-RADM	O-8	6,838.20	7,062.30	7,210.50	7,252.20	7,437.30	7,747.80	7,819.80	8,114.10	8,198.70	8,451.60	8,818.50	9,156.90	9,382.80 Maximum			
Brig Gen-RADM	O-7	5,682.30	6,068.40	6,068.40	6,112.50	6,340.80	6,514.50	6,715.50	6,915.90	7,116.90	7,747.80	8,280.90	8,280.90	8,280.90	8,280.90	8,280.90	8,322.60 Maximum
Col – CAPT	O-6	4,211.40	4,626.60	4,930.20	4,930.20	4,949.10	5,160.90	5,189.10	5,189.10	5,360.70	6,005.40	6,311.40	6,617.40	6,791.40	6,791.40	6,967.80	7,309.80 Maximum
Lt Col - CDR	O-5	3,868.70	3,954.90	4,228.80	4,280.40	4,450.50	4,450.50	4,584.30	4,831.80	5,155.80	5,481.60	5,637.00	5,700.30	5,964.60 Maximum			
Maj - LCDR	O-4	2,839.20	3,457.20	3,687.90	3,739.50	3,955.40	4,127.70	4,409.70	4,629.30	4,781.70	4,935.00	4,986.60 Maximum					
Capt - LT	O-3 (note 3)	2,638.20	2,991.00	3,228.00	3,489.30	3,656.40	3,839.70	3,992.70	4,189.80	4,292.10 Maximum							
1st Lt – LT(JG)	O-2 (note 3)	2,301.00	2,820.80	3,018.60	3,120.30	3,184.80 Maximum											
2nd Lt - ENS	O-1 (notes 3 & 4)	1,997.70	2,079.00	2,512.80 Maximum													
Aviation Cadets (see sec. 8082 & note 5)		1,242.90 Maximum															
Academy Cadets/ Midshipmen (note 5)		699.30 Maximum															
ROTC Members/ Applicants (see para 010101.H and note 5)		699.30 Maximum															

NOTES:
1. Basic pay for pay grades O-7 through O-10 is limited to the rate of basic pay for Level III of the Executive Schedule, which is $11,141.70. Basic pay for pay grades O-6 and below is limited to the rate of basic pay for Level V of the Executive Schedule, which is $9,806.10.
2. Basic pay for pay grade O-10 is $12,488.70 regardless of years of service when serving as Chairman or Vice Chairman of the Joint Chiefs of Staff, Chief of Staff of the Army, Chief of Naval Operations, Commandant of the Marine Corps, Chief of Staff of the Air Force, and Chief of Staff of the Army. However, basic pay is limited to the rate of basic pay for Level III of the Executive Schedule, which $11,141.70.
3. O-1, O-2, and O-3 rates do not apply to commissioned officers who have been credited with over 4 years (i.e., at least 4 years and 1 day) of active duty service as an enlisted member or as a warrant officer or as both an enlisted member and a warrant officer.
4. These rates, or, when applicable, the O-1E rates in Table 2-6 apply during periods of active service while a student of the Uniformed Services University of Health Sciences. Also see subparagraphs 010201.H and 010606.A.
5. Basic pay rate for Aviation Cadets - $1,242.90; for Academy Cadets/Midshipmen and ROTC members/applicants - $699.30 (Effective October 1, 2000).

★Table 2-5. Monthly Rates of Basic Pay--Commissioned Officers, Aviation Cadets, Academy Cadets/ Midshipmen, and ROTC Members/Applicants--Effective January 1, 2001

Instead of writing a BR that states “A member with a grade of O-9 with 20 years of cumulative service is entitled to $11,049.30 in Monthly Basic Pay”, the Business Rule could be:

“IF a Member is eligible for Basic Pay, THEN calculate Basic Pay Amount using Members Grade and Cumulative Years of Service.”

14 STANDARDS

Section 3 describes the standard procedure and considerations for documenting business rules.

3.1 GENERAL

A business rule is a contextual, structured English (including mathematical expressions or computation) statement that describes processing steps, the desired outcome, and how information requirements are used (lookup, reference, derived, aggregation, computation).

Business rules support requirements contained in U.S. law and DoD and Service policy, guidance, and regulations. A properly drafted BR will be:

- Clear, precise, and atomic (cannot be further decomposed)
- Written in plain English independent of technical solutions
- Directive: use verbs such as "must determine," "will assign," "is identified," or "are issued"
- Singular in form (e.g., a personnel specialist will issue, a member must provide, an officer must approve)
- Extracted from regulatory guidance whenever possible
- Uniquely named
- Clearly documented in sufficient detail to ensure everyone understands its purpose

3.2 NAME AND DEFINITION

3.2.1 Business Rule Naming Conventions. The CATs will assign each business rule a unique name, with consistent abbreviations to avoid confusion. To facilitate communication, the BR name must clearly identify the business concept and reflect the BR purpose. Business rule names should be written using the format: "<subject><action>" or "<subject><object>".

Example names: SGLI Payout to Minor Child

Eligibility to Reenlist – Term of Service

3.2.2 Business Rule Definition Guidelines. When creating a BR, CATs will include as much of the following information as possible:

- Who performs the task (individual, organization)
- What the actor's task is (information, data forms)
- When the actor performs the task or process step
- Why the actor performs the task

The business rule text will be written using the format: "If <condition>, then <outcome>."

3.3 RATIONAL GUIDELINES

3.3.1 Creation/Revision/Deletion. For specific tool instructions on creation, revision, or deletion of a business rule, refer to the "Rational Guidelines" document.

3.3.2 Linking Within Rational. The following table shows the links to be made within the Rational tool between IRs, BRs, references, DIMHRS Use Cases, and FP&A processes. The

links should be read across the table (for example, a IR should trace to a BR). Refer to the "Rational Guidelines" document for specific tool instructions.

Table 1 – Requirements Traceability

	DIMHRS UC	IR	BR	REF	FP&A
DIMHRS UC	Parent/Child				Trace to
IR			Trace to	*Trace to	
BR	Trace to			Trace to	

* Only information requirements that have a code list and an authoritative reference for this list should be traced to a reference in Rational. For example, ZIP codes, MOS codes, ranks, and pay grades each have a source reference of standard values. The IRs for these concepts should link to both the BR that states the need for the IR and the reference that provides the code list.

3.4 EXAMPLE BUSINESS RULES

Hostile Fire/Imminent Danger Area SLA Qualification

IF a member is entitled to hostile fire/imminent danger pay for at least 120 consecutive days, THEN the member qualifies for Special Leave Accrual consideration.

Leave Usage Priority

IF a member takes leave, THEN decrement days earned while the member was in a Combat Zone or Qualified Hazardous Duty Area first.

APPENDIX H – INFORMATION REQUIREMENTS PROCEDURES GUIDE

1 PURPOSE

This document provides standard guidance for creating, linking, and updating information requirements (IR) captured in the analysis of business activities within the Personnel and Pay (Pers/Pay) domain of the Defense Integrated Military Human Resources System (DIMHRS). It addresses how each of these business analysis activities is to be accomplished, how documented, and by whom. Finally, it establishes intended relationships between IR analysis work-products and their use, both by the Services and components for validation of "best practice" business functions, and by DIMHRS system developers to build accurate system Use Cases.

15 PROCESS STEPS

2.1 OVERVIEW

An IR is a data concept whose definition describes the business or functional context for the use of that data. This section describes how information requirements are created, updated and linked by the Comprehensive Analysis Teams (CATs) as part of the Comprehensive Analysis effort. Information requirements are generated from business rules (BRs), references, or interface Use Case steps; they identify the groups and types of data that are used, modified, or created in executing a business process. Also, IRs may be associated with an interface to inform the system developer what information is sent from or received by DIMHRS. They are used to define essential, enabling information required by the Pers/Pay Enterprise, as well as defining the essential information to be exchanged with other business processes.

15.1 INFORMATION REQUIREMENT DOCUMENTATION AND MAINTENANCE

2.2.1 CAT Responsibilities. In the course of Use Case development, CATs review guidance documents, develop business rules, identify data requirements to execute the business rule, and compare the data requirements with existing IRs. If there is no existing information requirement to support the business rule or Use Case step, the team proposes a new IR to include name, definition, and how it is used.

2.2.2 Identify Need for IR. IR development is a direct result of reference, business rule, and interface needs analysis. The CATs will analyze references to develop business rules supporting the Pers/Pay functional interface requirements. The nouns contained in the business rules are potential data concepts and information requirements. For example: "A service member shall have 20 years active federal service to retire." In that extracted business rule, an embedded data concept/information requirement would be "years active federal service."

2.2.3 Re-use existing IRs that fully support BR concepts. IRs that satisfy a business rule may already exist in DIMHRS. In order to maximize reuse of existing artifacts, the CATs must determine if the information requirement exists before creating a new one.

The following situations need to be addressed:

1. If a business rule supporting the business activity or interface requirement being analyzed already exists in the DIMHRS, the CAT must check the IRs linked to the business rule and/or Use Case step being reused. This is necessary in order to verify that the IRs satisfy the reference and business rules for the business activity or information exchange being analyzed. However, if a CAT does not agree with the existing IR linked to a business rule or Use Case step, they must coordinate with any team(s) using the business rule or Use Case step in their business area to determine why the IRs are not the same as those that the CAT is proposing.
2. Once a CAT has determined that an existing IR can be re-used, they need to determine if modifications to the IR are required.

2.2.4 Verify Accuracy of Existing IR. If an information requirement provides the enabling information required for the specific task, verify accuracy and relevance of the information requirement to the supported Pers/Pay function and process activities (Focus on WHAT constitutes the essential information? The explicit data called out by the IR and BR: HOW is it used?).

2.2.5 Verify Business Rule/Reference Linkage. Ensure the information requirement has a current link to at least one DIMHRS Use Case and at least one appropriate business rule or a reference as its authorization.

2.2.6 Create New IR. IRs must be derived from BR or interface analysis. If no information requirement can be found to match the needed data concept, the CAT creates the desired information requirement. New IRs have a "Status" of "Proposed".

2.2.7 Establish Linkages. Once the new information requirement is created, the CAT team must establish a link to the appropriate Use Case step and business rule or reference.

2.2.8 Decompose IRs. Information requirements should be explicit enough to be captured as singular in concept. The data requirement being documented should be explicit enough to denote both the use and name of the data item. As an example, the data item "Beneficiary Name" captures both the use (a person designated as a beneficiary) and the data item (person name). A further description of this concept is contained in paragraph 3.1 (Information Requirement Meta-data Guidelines).

2.2.9 Control Change. New information requirements does not fall under Configuration Management guidelines until approved by JR&IO CAT Functional Coordinator and/or delivered as part of a Business Area. Proposed changes to approved Information Requirement names or purpose statements do fall under Configuration Management Control and will require submission of a formal Change Request (CR), in accordance with the DIMHRS Configuration Management Plan.

3 STANDARDS

Section 3 describes the standard procedure and considerations for documenting an information requirement.

3.1 GENERAL

Table X describes all of the attributes to be documented for IRs. Of the full set of attributes, CATs will ONLY be responsible for documenting the following:

- Name
- Text, including sample codes if applicable
- Issues
- Status
- Business Area

Table 1 – IR Attributes

Information Requirement Meta-data Guidelines	
Field Name	**Field Description**
Name	Unique name of the information requirement The IR Title should reflect the functional role and/or data concept to be captured as an entity/attribute. The IR may represent multiple concepts, however, there is always one primary concept. A modifier should be included in the title to further describe/explain the IR (see underlines below). A class word may be required to identify the structure of a domain for data (see italics below). The class word should always come at the end of an IR title. **Samples of Acceptable IR Titles**: Body Fat Percentage Certification Effective *Date* College Attended *Name* Combat Duty *Indicator* Dental Premium Training Incentive Description Transportation *Type* **Unacceptable/Unsatisfactory IR Titles** *(and reason)*: Duty Location Country, State or Geo-location Code. *(Cannot be a choice of concepts. Must have one and only one primary concept)* Enlistment Bonus Payment Date (actual amount paid this period). (P*arentheses should not be used; title is not concise — unable to determine if the "date" or "amount paid" is the business object of the IR.)* Enlistment Extension Identifier, Number Months Operative. (*Unable to determine if an "identifier" or "number of months" is the object of the IR)*
Text (with codes as appropriate)	A clear and concise definition that conveys a business understanding of what the information is, beginning with the article "The". **Code Examples**: Code + Description: A – EXCUSED ABSENCE B – UNEXCUSED ABSENCE C – ORDINARY LEAVE D – ADVANCE LEAVE E – EXCESS LEAVE
When Collected/updated	Indicate when the information requirement is obtained/updated (upon request, annually, etc.)

Information Requirement Meta-data Guidelines	
Field Name	**Field Description**
Where Collected/updated	Indicate organizational entity **Example:** Personnel Support Activity, Accession Activity, Pay Support Activity, Manpower, etc.
Timeliness Required	Indicate when the information requirement is needed (as required, 1st of each month, every 30 days, etc.) **Example**: Within twenty-four hours of initial activation order or a change to it
Events Triggered	List activities potentially initiated by creation, read, update or deletion of the IR
Data Dependencies	Indicate what information must be available for this IR to be used by the business (e.g., inputs) and what information is dependent on this IR
Authority Required	List governing Authority/Organization that controls the information (e.g. Accession Activity, Personnel Support Activity)
Source	**Examples:** External Feed, User Supplied, System Generated, Regulation, Industry Standard, Person Declaration
Valid Format	The data type represents the format for the concept contained in the IR. ***IR Example*** ***Data Type*** Annuity Amount — Fixed-Point Activation Order Duration — Integer Education Level — Character Activation Order Date — YYYYMMDD
Remarks	Comments
JPAV	(Yes/No) An IR that is resident in the Joint Personnel Asset Visibility (JPAV) Database. Default to NO.
DMDC Collected	(Yes/No) Is IR collected by DMDC and not the services?
Army Collected	(Yes/No) Is IR collected by the Army?
Navy Collected	(Yes/No) Is IR collected by the Navy?
Air Force Collected	(Yes/No) Is IR collected by the Air Force?
Marine Collected	(Yes/No) Is IR collected by the Marines?
Special Interest	(Yes/No) Is this IR of special interest to OSD?
Pay Impact	(Yes/No) Does IR impact Member's pay?
Warfighter	(Yes/No) Is this an IR that is necessary for Personnel Support in a contingency operation or war?

Information Requirement Meta-data Guidelines	
Field Name	**Field Description**
In Theater	(Yes/No) Is information required to support Personnel Accountability in a theater of operation (Strength Accountability)?
Manpower	(Yes/No) IRs which have to do with positions, organizations, or installations, not people.
PCN	Product Control Number. Any IRs with a PCN MUST not be modified without having a Change Request and going through the CCB Process.
Self Service	(Yes/No) Will the Service Member potentially be able to update the information?
ISSUE	Question/Issue associated with this IR.
STATUS	Pick List. ***Status*** — ***Description*** Approved — IR is approved by Client Proposed — New IR Deleted — IR has been deleted from approved list
BUSINESS AREA	Pick List. Select which Business Area(s) to which this IR is related.

3.2 NAME AND DEFINITIONS

In order to specify an IR, each IR must have a unique and functionally recognizable name. The name together with its definition should allow the reader to easily identify the data concept or purpose of the IR. IR metadata (when/where collected, data dependencies, events triggered) are to be documented. Finally, an IR definition should be accurately and concisely summarized.

3.2.1 Naming Convention. Whenever possible, the names of information requirements should begin with a broad categorization, which will aid in the sorting of related IRs (e.g. "Pay: Amount," "Pay: Date," "Pay: Type". This practice will result in fewer duplicative requirements and speed up searches for existing information.

The names of IRs should be as close as practical to the names used in everyday usage (e.g. "person Full Legal Name", "Address: ZIP Code," "Person Social Security Number").

If known, information requirements that are of the following types should use their respective class words at the end of the IR name: date, date time, or amount. The class words for other IRs (e.g. name, identifier, text, or code) are optional, but encouraged.

3.2.2 Information Requirement Name Guidelines. CATs will apply the following general guidelines when creating or revising an information requirement.

- Include only alphabetic characters (A-Z).

- Do not abbreviate. There is no limit to the size of the IR name.
- Use a singular noun or noun phrase. For example, ORGANIZATION, not ORGANIZATIONS.
- The IR name must be a commonly understood term in the functional business. For example, the IR name PERSON DOMESTIC RELATIONSHIP LEGAL AGREEMENT TERMINATION should be changed to DIVORCE.

The IR name should NOT contain:

- Class word names except under special circumstances. Approved class word names may be used in entity names (such as PERSON-NAME) to more clearly identify an information requirement commonly used in the business. An entity name should not be just a class word name.
- Names of organizations, computer or information systems, directives, forms, screens, or reports.
- Articles (a, an, the) or prepositions (at, by, for, from, in, of, to, etc.) unless the article or preposition clearly aids in identifying an information requirement term commonly used in the business.

3.2.3 Information Requirements Definition Guidelines. CATs are to use the following guidelines in developing IR definitions:

- Define WHAT the entity is, not HOW, WHERE, or WHEN the entity is used, or WHO uses it.
- Add meaning to the name based on the reference causing the entity to be documented. Do not merely restate or rephrase the name, or just provide a list of the attributes or meta-attributes within the entity.
- Be concise. The definition should be brief, comprehensive and functionally meaningful.
- Be precise and unambiguous. The exact meaning and interpretation of the defined concept should be apparent from the definition. A definition should be clear enough to allow only one possible interpretation functionally as well as technically.
- Avoid using words that appear in the IR name.
- Avoid circular reasoning. Two definitions should not be defined in terms of each other. Avoid one definition pointing to a second definition for further explanation and the second definition pointing back to the first definition. Using referenced based analysis is the best way to avoid this trap.
- Define the IR in terms of one instance, not a group of instances.
- Begin with an article “A” or “An”. For example, US ARMED FORCES MEMBER: “A person who currently serves or has previously served as a member of the U.S. Armed Forces.”
- Do not begin with an infinitive (e.g., "To describe...").
- Do not begin with “This entity describes” or a similar construction.
- Define the IR in terms of the person, place, thing, or idea of interest to the business, not in terms of the information captured about the thing of interest. (For example, a typical IR does

not “indicate,” “capture,” “establish” or “contain” anything as part of its definition.) Note: however, such verb phrases might be meaningful in explaining the true business reason/purpose why the IR is important to the business. The reference is the source of clarification.

3.2.4 Sample of Documented Information Requirements

Examples of Properly Documented Information Requirements:

Table 2 – Example IR Attributes

Field Name	Sample Entry 1	Sample Entry 2
Name	Citizenship Country	Person Full Legal Name
TEXT	The country(ies) for which a person holds citizenship. Sample Codes: AA - ARUBA AC - ANTIGUA AND BARBUDA AE - UNITED ARAB EMIRATES AF - AFGHANISTAN AG - ALGERIA AJ - AZERBAIJAN AL - ALBANIA AM - ARMENIA AN - ANDORRA AO - ANGOLA	The complete legal name of a person including first, middle, last and cadency name.
When Collected/Updated	Collected upon establishment of personnel record and updated when citizenship changes.	Collected when personnel record is established and updated upon legal name change.
WHERE COLLECTED/UPDATED	Accession Activity, Personnel Support Activity	Accession Activity, Personnel Support Activity
TIMELINESS REQUIRED	Within 12 hours of any change	Within 12 hours of record establishment or notification of legal name change.
EVENTS TRIGGERED	Security Clearance Eligibility, Assignment Eligibility, Classification Eligibility	None
DATA DEPENDENCIES	None	None
AUTHORITY REQUIRED	Accession Activity, Personnel Support Activity	Accession Activity, Personnel Support Activity
Source	Other Documentation (birth certificate, citizenship papers, national identification forms)	Other Documentation (court document, birth certificate)
VALID FORMAT	Character	Last Name, First Name, Middle Initial, Cadency

Field Name	Sample Entry 1	Sample Entry 2
REMARKS		
CODES (STATIC VALUES)	AA - ARUBA AC - ANTIGUA AND BARBUDA AE - UNITED ARAB EMIRATES AF - AFGHANISTAN AG - ALGERIA AJ - AZERBAIJAN AL - ALBANIA AM - ARMENIA AN - ANDORRA AO - ANGOLA AQ - AMERICAN SAMOA AR - ARGENTINA AS - AUSTRALIA AT - ASHMORE AND CARTIER ISLANDS AU - AUSTRIA AV - ANGUILLA AY - ANTARCTICA Etc…	

3.3 RATIONAL GUIDELINES

3.3.1 Creation/Revision/Deletion. For specific tool instructions on creation, revision, or deletion of an information requirement, refer to the "Rational Guidelines" document.

Linking Within Rational. The following table shows the links to be made within the Rational tool between IRs, business rules (BRs), references, DIMHRS Use Cases, and FP&As. The links should be read across the table (for example, a IR should trace to a BR). Refer to the "Rational Guidelines" document for specific tool instructions.

Table 3 – Requirements Traceability

	DIMHRS UC	IR	BR	REF	FP&A
DIMHRS UC	Parent/Child				Trace to
IR			Trace to	*Trace to	
BR	Trace to			Trace to	

* Only information requirements that have a code list and an authoritative reference for this list should be traced to a reference in Rational. For example, ZIP codes, MOS codes, ranks, and pay

grades each have a source reference of standard values. The IRs for these concepts should link to both the BR that states the need for the IR and the reference that provides the code list.

3.4 MODIFYING/DELETING APPROVED INFORMATION REQUIREMENTS

An approved information requirement has a Product Control Number (PCN). When analyzing the business area, the CAT may determine that an approved IR needs to be modified or deleted to satisfy a business need. For a modification, the CAT must create a new IR with the appropriate BA identified as an attribute and a "Status" of "Proposed." The new IR's name will include the prefix "CAT#R, where "#" is the number of the CAT proposing the change. The CAT will not change the original IR until the CAT Technical Lead gets approval from the CAT Integration Team to make the change. Once the CAT has created the proposed IR in Rational, the CAT must submit a CR in MS Word until Rational ClearCase is implemented.

The change request must include the following information:

- ORIGINATOR: (CAT#, CR creator)
- PHONE: (CR creator phone number)
- DATE:
- BA#:
- ARTIFACT NAME/PCN:
- CHANGE TITLE:
- CHANGE DESCRIPTION: (Describe the change requested. When proposing deletion of an approved IR, the proposing CAT must identify what actions will be taken to resolve any links associated with the IR to be deleted.)
- JUSTIFICATION: (Describe the reason(s) the change is required, the impact of the change on other BAs and any other supporting information)

The CAT may have many reasons for modifying an IR in the CR justification. Examples of acceptable reasons include:

- duplicate or redundant concepts in two or more IRs (modify one IR and delete the other IR(s))
- ambiguous definition and/or codes
- incorrect code values
- definition is inconsistent
- inappropriate name
- multiple concepts (need to break out into single concepts)
- legacy concept

Once the CR for a modification has been approved, the CAT will copy the revised text from the proposed IR into the original IR in the IR Document in Rational. This is necessary to maintain

the original PCN and the links to other Use Cases. Once this is done, the CAT will delete the proposed IR to avoid duplicates, and then link the revised original IR to the appropriate Use Case. If the CR is disapproved, the CAT may either delete the proposed IR or revise the CR and resubmit it.

When proposing the deletion of an approved IR, the CAT will create a CR as described above. Again, the CAT will not make any change to the original IR until the CAT Technical Lead gets approval to delete the IR. If the CR is approved, the CAT will change the IR "Status" to "Deleted" and resolve all existing links in Rational, as described in the approved CR.

APPENDIX I – GLOSSARY OF TERMS

Activity Diagram: A graphical representation of functions or processes containing one or more activities and decision points, and with a single start and end with potential multiple paths to arrive at the end.

Actor: Someone or something outside the system that interacts with the system. A list of actors may include—

HR personnel

Member

Another system

Systems agent

Time.

Artifact: A piece of information that is used or produced by a software development process. An artifact can be a model, a description, or software. Synonym: product

Baseline: A reviewed and approved release of artifacts that constitutes an agreed-on basis for further evolution or development and that can be changed only through a formal procedure, such as change management and configuration control.

Business Area (BA): A Business Area represents a subset of the military personnel and pay enterprise. It comprises related business functions that combine Personnel/Pay functionality with corresponding requirements from the FP&A. Business Areas take into account DoD business requirements, process analyses already completed, and the FP&A.

Business Process Reengineering: The optimization of existing processes into more efficient business best practices.

Business Rule (BR): A business rule is defined to be a contextual, structured English (including mathematical expressions or computation) statement that describes processing steps and how information requirements are used (lookup, reference, derived, aggregation, computation) and the desired outcome. The business rules support requirements contained in U.S. law and DoD and Service policy, guidance, and regulations. There are no fewer than three distinct types: trigger—invocation and termination mechanism only, data—rules associated with the use or application of atomic data, and process—determinate expression of how an event occurs.

Business Use Case: A sequence of actions performed by a business that yields an observable result of value to a particular business actor.

Business Worker: A business worker represents a role or a set of roles in the business. A business worker interacts with other business workers and manipulates business entities while participating in business use-case realizations.

Configuration Management: The activity of controlling and tracking changes to requirements artifacts. See also scope management.

Configuration Manager: The configuration manager is responsible for setting up the product structure in the Configuration Management system, for defining and allocating workspaces for developers, and for integration. The configuration manager also extracts the appropriate status and metrics reports for the project manager.

Customer: A person or organization, internal or external to the producing organization, that takes financial responsibility for the system. In a large system, this may not be the end user. The customer is the ultimate recipient of the developed product and its artifacts. See also stakeholder.

Defect: An anomaly, or flaw, in a delivered work product. Examples include such things as omissions and imperfections found during early life-cycle phases and symptoms of faults contained in software sufficiently mature for test or operation. A defect can be any kind of issue one wants tracked and resolved. See also change request.

Developer: A person responsible for developing the required functionality in accordance with project-adopted standards and procedures. This can include performing activities in any of the requirements, analysis and design, implementation, and test disciplines.

DIMHRS Use Case: A hybrid type of use case, combining aspects of business and system use cases to describe a sequence of actions performed in support of military human resources management, and using, to some degree, the intended functionality of DIMHRS (Pers/Pay).

Document: A collection of information that is intended to be represented on paper, or in a medium using a paper metaphor. The paper metaphor includes the concept of pages and has either an implicit or an explicit sequence of contents (examples of paper metaphors are word processor documents, spreadsheets, schedules, Gantt charts, Web pages, and overhead slide presentations). The information is in text or two-dimensional pictures.

Foundation Tables: The containing structures for storing configured core organization data, providing consistency edits when entering data, and enabling data default options. Types of tables include installation parameters, general setup options, global defaults, organization structure, company/business units, departments, pay groups, locations, jobs, concurrent jobs, positions, actions/reasons, compensation plans, and salary grades. This is evolutionary, based on system requirements.

Function, Process and Activity (FP&A) Report: The FP&A Report reflects the enterprise view of military personnel and pay life cycle. It represents the seven major functions within the Pers/Pay enterprise, the processes required to successfully achieve these functions, and minimum activities necessary to execute each process.

Gap: A gap represents a requirement (functional, technical, system) that is not accommodated by each delivered COTS. Any potential gap shall be submitted to the Question/Issue Resolution Process for disposition. (See Issue resolution Form process described in Appendix B.)

Information Requirement (IR): Information required by processes to perform the functional activities associated with that process. IRs can be derived from one or more data elements or represented by an individual atomic data element.

Iteration: A distinct sequence of activities with a base lined plan and valuation criteria resulting in a release (internal or external).

Process Flow: A process flow describes the activities, allowed path between activities, associated IRs (input/output), and activation or termination of other processes. Unless this process is self-contained, all input and output IRs must be defined, and associated activation and termination descriptions must be defined. Furthermore, all activities must be contained in the process flow. Reuse of the any process flow may only be represented by a single process flow symbol.

Quality Assurance (QA): The QA function is the responsibility of (and reports to) the project manager and is responsible for ensuring that all project staff correctly and verifiably follow project standards.

Reference: A source of information, including law, regulation, or policy, supporting DoD requirements.

Requirement: A condition or capability to which a system must conform; either derived directly from user needs or stated in a contract, standard, specification, or other formally imposed document. A desired feature, property, or behavior of a system.

Role: A definition of the behavior and responsibilities of an individual, or a set of individuals working together as a team, within the context of a software engineering organization.

Scope Management: The process of prioritizing and determining the set of requirements that can be implemented in a particular release cycle, based on the resources and time available. This process continues throughout the life cycle of the project as changes occur. See also change management.

Stakeholder: An individual who is materially affected by the outcome of the system.

Stakeholder Need: The business or operational problem (opportunity) that must be solved (fulfilled) to justify purchase or use.

System Use Case: A sequence of actions performed by a system that yields an observable result of value to a particular actor.

Traceability: The ability to trace a project element to other related project elements, especially those related to requirements. Project elements involved in traceability are called traceability items.

Use Case (Class): A description of system behavior, in terms of sequences of actions. A use case should yield an observable result of value to an actor. A use case contains all alternate flows of events related to producing the "observable result of value." More formally, a use case defines a set of use-case instances or scenarios.

Use Case Specification: A textual description of the sequence of actions performed to execute a use case.

Use Case Diagram: A diagram that shows the relationship among actors and use cases within a system.

User: Any person, organization, or system that provides input to or receives information from the system. DIMHRS users include people, organizations, and systems throughout DoD and other federal, state, and local agencies.